

Access DB# 107746

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: S. Kumar Examiner #: 69594 Date: 11/5/03
 Art Unit: 1621 Phone Number 308 4519 Serial Number: 09/998 195
 Mail Box and Bldg/Room Location: CM1 7A07 Results Format Preferred (circle) PAPER DISK E-MAIL
71512

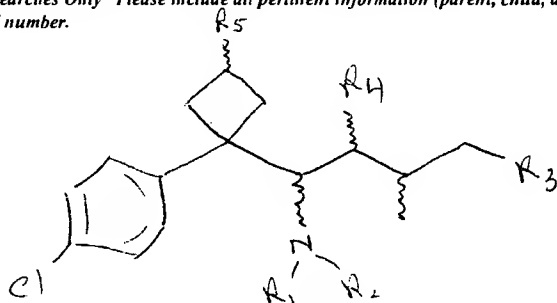
If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Synthesis, methods of using, and composition of hydroxylated cyclobutylalkylamines
 Inventors (please provide full names): Chris H. Senanayake et al.

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



Jan Deval
 Reference Librarian
 Biotechnology & Chemical Library
 CM1 1E07 - 703-308-4498
 jan.deval@uspto.gov

R_1 & R_2 are H or alkyl

R_3 , R_4 , R_5 are H, OH, alkyl provided that at least one of R_3 , R_4 , and R_5 is not hydrogen.

if each of R_1 , R_2 , R_3 is hydrogen and then

R_4 is OH, the compound is not racemic and if each

R_1 , R_2 , R_3 and R_4 is hydrogen & R_5 is OH, the compound is not racemic.

Use: treatment and prevention of diseases and/or disorders that are ameliorated by the inhibition of neuronal monoamine uptake in mammals.

STAFF USE ONLY

| | Type of Search | Vendors and cost where applicable |
|--------------------------------------|---|---|
| Searcher: <u>Jan</u> | NA Sequence (#) _____ | STN <input checked="" type="checkbox"/> |
| Searcher Phone #: <u>4498</u> | AA Sequence (#) _____ | Dialog _____ |
| Searcher Location: _____ | Structure (#) <input checked="" type="checkbox"/> | Questel/Orbit _____ |
| Date Searcher Picked Up: <u>11/7</u> | Bibliographic _____ | Dr. Link <u>(3115)</u> |
| Date Completed: <u>11/7</u> | Litigation _____ | Lexis/Nexis _____ |
| Searcher Prep & Review Time: _____ | Fulltext _____ | Sequence Systems <u>NOV-5 2003</u> |
| Clerical Prep Time: <u>20</u> | Patent Family _____ | WWW/Internet <u>RECEIVED</u> |
| Online Time: <u>4:50</u> | Other _____ | Other (specify) _____ |



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 107746

TO: Shailendra Kumar
Location: 7a07 / 7e12
Friday, November 07, 2003
Art Unit: 1621
Phone: 308-4519
Serial Number: 09 / 998195

From: Jan Delaval
Location: Biotech-Chem Library
CM1-1E07
Phone: 308-4498

jan.delaval@uspto.gov

Search Notes

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 - 703-308-4498
jan.delaval@uspto.gov

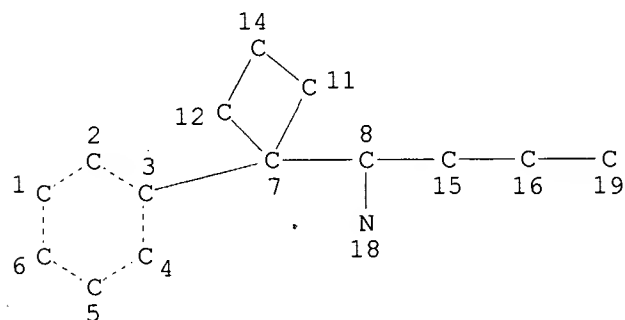
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES:      6 NOV 2003  HIGHEST RN 613649-12-0
DICTIONARY FILE UPDATES:    6 NOV 2003  HIGHEST RN 613649-12-0
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Please note that search-term pricing does apply when conducting SmartSELECT searches.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

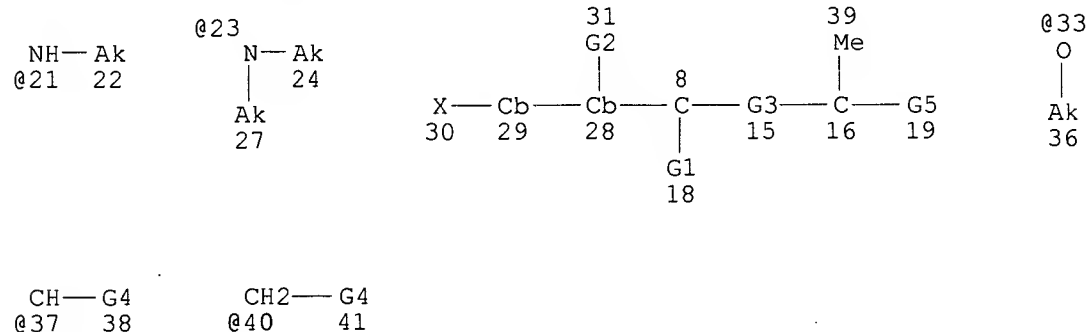
L3 STR



Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

GRAPH ATTRIBUTES:
RSPEC 7 3
NUMBER OF NODES IS 15

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STEREO ATTRIBUTES: NONE
L5          425 SEA FILE=REGISTRY SSS FUL L3
L8          STR
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VAR G1=NH2/21/23

VAR G2=H/OH/33

VAR G3=CH2/37

VAR G4=OH/33

VAR G5=CH3/40

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 29

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E4 C AT 28

ECOUNT IS E6 C AT 29

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 425 ITERATIONS

82 ANSWERS

SEARCH TIME: 00.00.01

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L3 STR L1
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SAV L5 KUMAR998/A
L6 STR L3
L7 7 S L6 CSS SAM SUB=L5
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SAV L10 KUMAR998A/A
L11 64 S L10 AND O/ELS
L12 47 S L11 AND 1/O
L13 27 S L12 AND C15H22CLNO
L14 12 S L13 AND 1/NC
SEL RN 1 2
L15 10 S L14 NOT E1-E2
L16 29 S L10 AND 1/NC
L17 19 S L16 NOT L15
L18 29 S L15,L17
SEL RN
L19 50 S E3-E31/CRN
L20 3 S L10 NOT L15,L18,L19
L21 53 S L10 NOT L16

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L23 0 S L21

FILE 'HCAPLUS' ENTERED AT 16:04:53 ON 07 NOV 2003

L24 2 S L15

L25 100 S L21
L26 2 S L24 AND L25
L27 98 S L25 NOT L26
E SENANAYAKE C/AU
L28 129 S E3,E6,E10-E12,E15,E16,E17
E RUBIN P/AU
L29 142 S E3,E5,E13,E14
E JERUSSI T/AU
L30 59 S E4,E5
E SEPRACOR/PA,CS
L31 374 S E3,E4
L32 14 S L24-L27 AND L28-L31
L33 85 S L24-L27,L32 AND (PY<=2000 OR PRY<=2000 OR AY<=2000)
L34 100 S L24-L27,L32-L33
L35 355 S SIBUTRAMINE
L36 231 S L34,L35 AND (PY<=2000 OR PRY<=2000 OR AY<=2000)
L37 77 S L35 AND (MONOAMINE OR MAO)

FILE 'REGISTRY' ENTERED AT 16:28:10 ON 07 NOV 2003

FILE 'HCAPLUS' ENTERED AT 16:28:51 ON 07 NOV 2003

L38 319 S L10
L39 234 S L34,L35,L38 AND (PY<=2000 OR PRY<=2000 OR AY<=2000)
L40 67 S L39 AND (MONOAMINE OR MAO)
E MONOAMINE/CT
E E20+ALL
L41 77 S E3 (L) (UPTAKE OR REUPTAKE)
L42 29 S L39 AND L41
L43 79 S E3 (L) INHIBIT?
L44 10 S L43 AND L39
L45 29 S L42,L44
E MONOAMINE/CT
E E15+ALL
L46 227 S E2
L47 236 S E4
L48 217 S E6
L49 45 S E8
L50 180 S E10
L51 4 S L46-L50 AND L39
L52 32 S L45,L51
L53 30 S L52 AND L38
L54 20 S L28-L31 AND L38,L35
L55 13 S L54 AND L39
L56 41 S L53,L55
L57 7 S L54 NOT L56
L58 48 S L56,L57
SEL HIT RN

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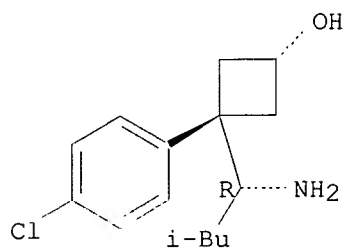
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RN 435343-79-6 REGISTRY
CN Cyclobutanol, 3-[(1R)-1-amino-3-methylbutyl]-3-(4-chlorophenyl)-, cis-
(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA

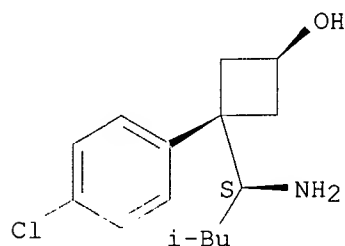
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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RN 435343-77-4 REGISTRY
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(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA

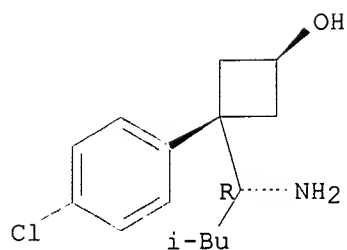
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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RN 435343-75-2 REGISTRY
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(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA

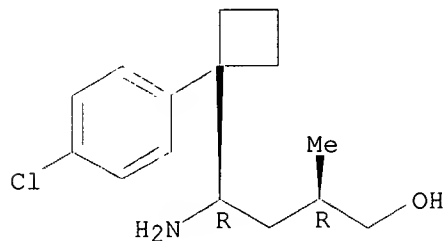
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L15 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 435343-65-0 REGISTRY
 CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)-β-methyl-,
 (βR,8R)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C15 H22 Cl N O
 CI COM
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



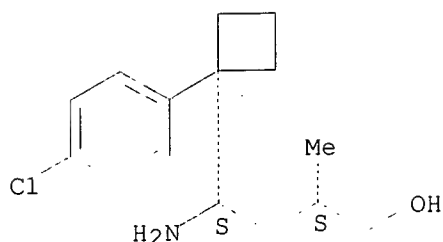
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1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L15 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 435343-63-8 REGISTRY
 CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)-β-methyl-,
 (βS,8S)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C15 H22 Cl N O
 CI COM
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



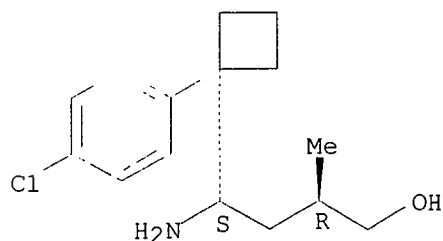
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L15 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-60-5 REGISTRY
CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)-β-methyl-,
(βR,8S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



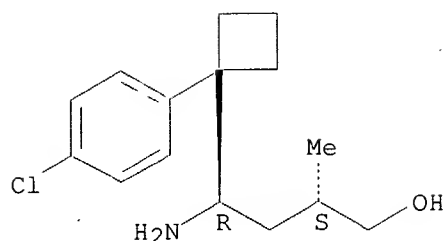
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L15 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-58-1 REGISTRY
CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)-β-methyl-,
(βS,8R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



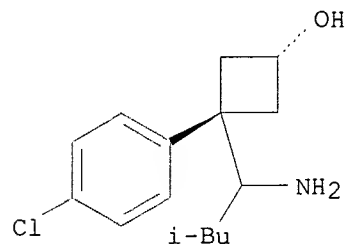
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L15 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
RN 186521-90-4 REGISTRY
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, cis- (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Relative stereochemistry.



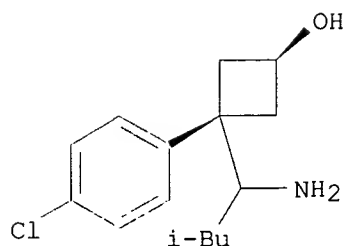
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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143907

L15 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
RN 186521-84-6 REGISTRY
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, trans- (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Relative stereochemistry.

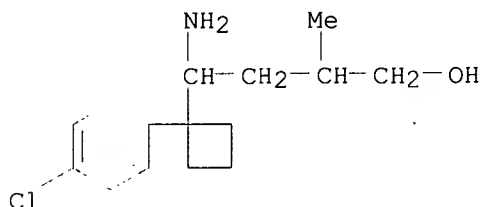


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143907

L15 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN
RN 186521-83-5 REGISTRY
CN Cyclobutanethanol, 8-amino-1-(4-chlorophenyl)-β-methyl- (9CI)
(CA INDEX NAME)
FS 3D CONCORD
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143907

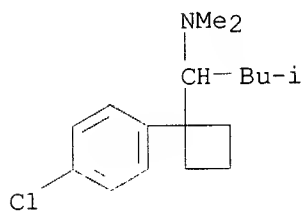
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L65 72 L10 NOT L15

=> d ide can tot

L65 ANSWER 1 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 586349-89-5 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl-α-(2-methylpropyl)-, nitrate (9CI) (CA INDEX NAME)
MF C17 H26 Cl N . H N O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

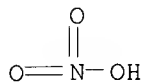
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CMF C17 H26 Cl N



CM 2

CRN 7697-37-2
CMF H N O3

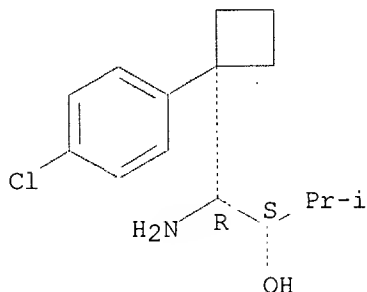


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214237

L65 ANSWER 2 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-98-9 REGISTRY
CN Cyclobutaneethanol, β -amino-1-(4-chlorophenyl)- α -(1-methylethyl)-, hydrochloride, (α S, β R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
CRN (435343-97-8)

Absolute stereochemistry.



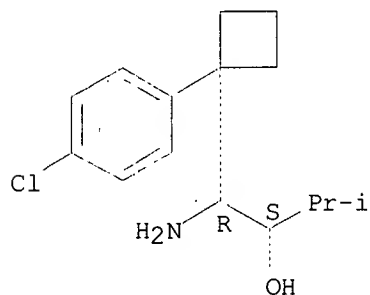
HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 3 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-97-8 REGISTRY
CN Cyclobutaneethanol, β -amino-1-(4-chlorophenyl)- α -(1-methylethyl)-, (α S, β R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



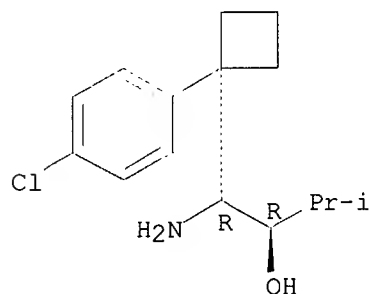
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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 4 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-96-7 REGISTRY
CN Cyclobutaneethanol, β -amino-1-(4-chlorophenyl)- α -(1-methylethyl)-, hydrochloride, (α R, β R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
CRN (435343-95-6)

Absolute stereochemistry.



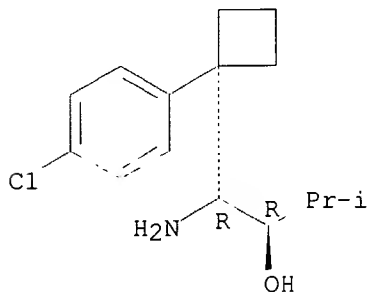
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 5 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-95-6 REGISTRY
CN Cyclobutaneethanol, β -amino-1-(4-chlorophenyl)- α -(1-methylethyl)-, (α R, β R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



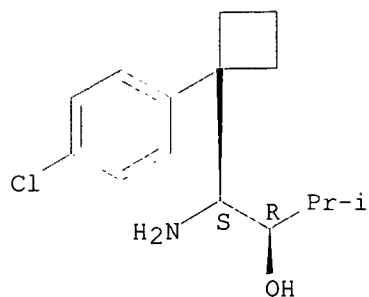
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REFERENCE 1: 137:20209

L65 ANSWER 6 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-94-5 REGISTRY
CN Cyclobutaneethanol, β -amino-1-(4-chlorophenyl)- α -(1-methylethyl)-, hydrochloride, (α R, β S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



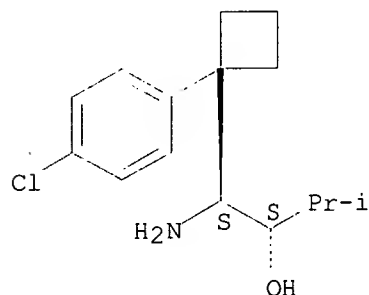
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 7 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-93-4 REGISTRY
CN Cyclobutaneethanol, β -amino-1-(4-chlorophenyl)- α -(1-methylethyl)-, hydrochloride, (α S, β S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
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REFERENCE 1: 137:20209

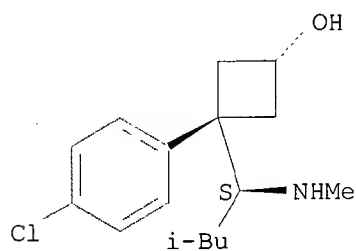
L65 ANSWER 8 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-89-8 REGISTRY
CN Benzeneacetic acid, α -hydroxy-, (α S)-, compd. with cis-3-(4-chlorophenyl)-3-[(1S)-3-methyl-1-(methylamino)butyl]cyclobutanol (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . C8 H8 O3

SR CA
LC STN Files: CA, CAPLUS, USPATFULL

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CRN 435343-81-0
CMF C16 H24 Cl N O

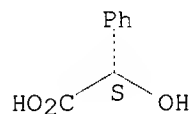
Absolute stereochemistry.



CM 2

CRN 17199-29-0
CMF C8 H8 O3

Absolute stereochemistry. Rotation (+).



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

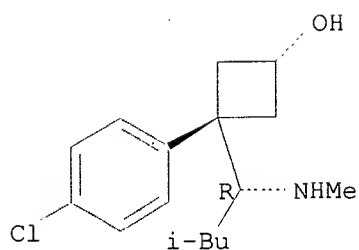
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L65 ANSWER 9 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-88-7 REGISTRY
CN Benzeneacetic acid, α -hydroxy-, (α R)-, compd. with
cis-3-(4-chlorophenyl)-3-[(1R)-3-methyl-1-(methylamino)butyl]cyclobutanol
(1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . C8 H8 O3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-87-6
CMF C16 H24 Cl N O

Absolute stereochemistry.

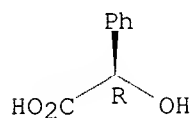


CM 2

CRN 611-71-2

CMF C8 H8 O3

Absolute stereochemistry. Rotation (-).



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 10 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 435343-87-6 REGISTRY

CN Cyclobutanol, 3-(4-chlorophenyl)-3-[(1R)-3-methyl-1-(methylamino)butyl]-, cis- (9CI) (CA INDEX NAME)

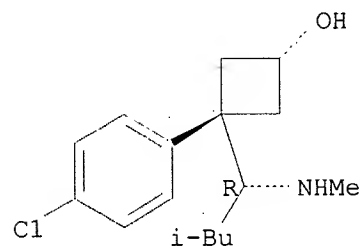
FS STEREOSEARCH

MF C16 H24 Cl N O

CI COM

SR CA

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L65 ANSWER 11 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 435343-86-5 REGISTRY

CN Benzeneacetic acid, α-hydroxy-, (αS)-, compd. with trans-3-(4-chlorophenyl)-3-[(1S)-3-methyl-1-(methylamino)butyl]cyclobutano 1 (1:1) (9CI) (CA INDEX NAME)

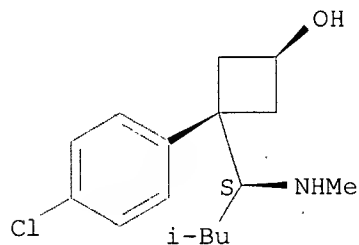
FS STEREOSEARCH

MF C16 H24 Cl N O . C8 H8 O3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-85-4
CMF C16 H24 Cl N O

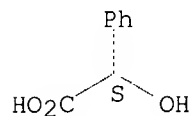
Absolute stereochemistry.



CM 2

CRN 17199-29-0
CMF C8 H8 O3

Absolute stereochemistry. Rotation (+).

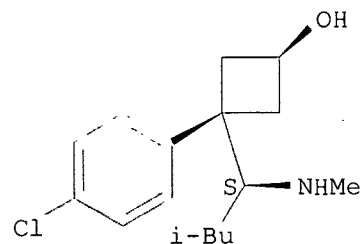


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 12 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-85-4 REGISTRY
CN Cyclobutanol, 3-(4-chlorophenyl)-3-[(1S)-3-methyl-1-(methylamino)butyl]-,
trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA

Absolute stereochemistry.



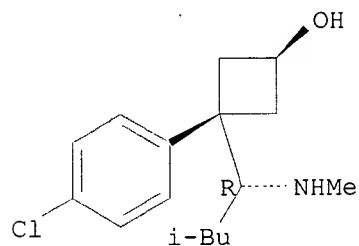
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L65 ANSWER 13 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-84-3 REGISTRY
CN Benzeneacetic acid, α -hydroxy-, (α R)-, compd. with
trans-3-(4-chlorophenyl)-3-[(1R)-3-methyl-1-(methylamino)butyl]cyclobutano
l (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . C8 H8 O3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-83-2
CMF C16 H24 Cl N O

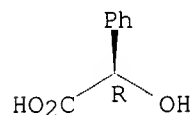
Absolute stereochemistry.



CM 2

CRN 611-71-2
CMF C8 H8 O3

Absolute stereochemistry. Rotation (-).

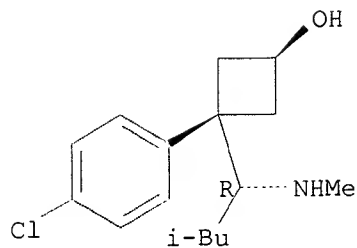


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 14 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-83-2 REGISTRY
CN Cyclobutanol, 3-(4-chlorophenyl)-3-[(1R)-3-methyl-1-(methylamino)butyl]-,
trans- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP'. FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

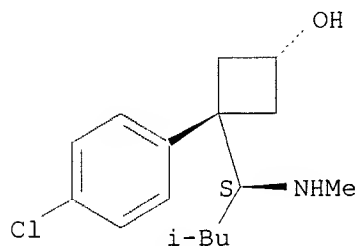
REFERENCE 1: 137:20209

L65 ANSWER 15 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-82-1 REGISTRY
CN Cyclobutanol, 3-(4-chlorophenyl)-3-[(1S)-3-methyl-1-(methylamino)butyl]-, cis-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-81-0
CMF C16 H24 Cl N O

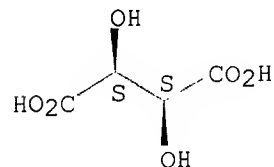
Absolute stereochemistry.



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.

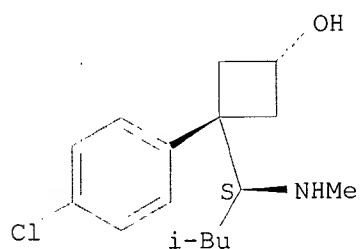


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 16 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-81-0 REGISTRY
CN Cyclobutanol, 3-(4-chlorophenyl)-3-[(1S)-3-methyl-1-(methylamino)butyl]-,
cis- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA

Absolute stereochemistry.



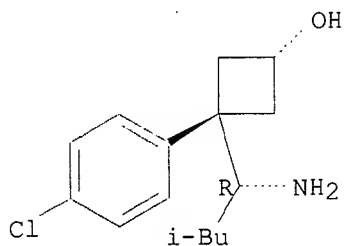
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L65 ANSWER 17 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-80-9 REGISTRY
CN Cyclobutanol, 3-[(1R)-1-amino-3-methylbutyl]-3-(4-chlorophenyl)-, cis-,
(2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-79-6
CMF C15 H22 Cl N O

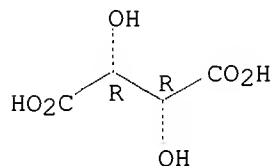
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

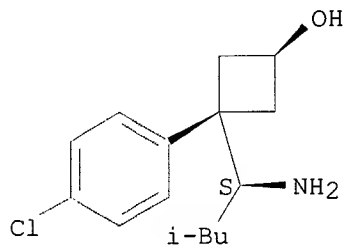
REFERENCE 1: 137:20209

L65 ANSWER 18 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-78-5 REGISTRY
CN Cyclobutanol, 3-[(1S)-1-amino-3-methylbutyl]-3-(4-chlorophenyl)-, trans-,
(2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-77-4
CMF C15 H22 Cl N O

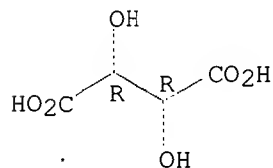
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

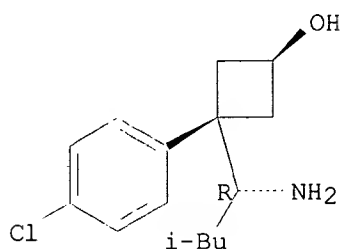
REFERENCE 1: 137:20209

L65 ANSWER 19 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-76-3 REGISTRY
CN Cyclobutanol, 3-[(1R)-1-amino-3-methylbutyl]-3-(4-chlorophenyl)-, trans-,
(2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-75-2
CMF C15 H22 Cl N O

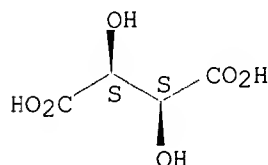
Absolute stereochemistry.



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

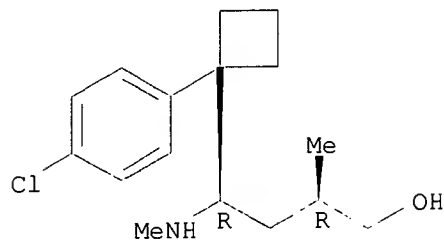
REFERENCE 1: 137:20209

L65 ANSWER 20 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-74-1 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)-β-methyl-δ-(methylamino)-
, (βR,δR)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt)
(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-73-0
CMF C16 H24 Cl N O

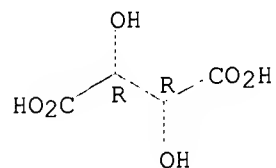
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.

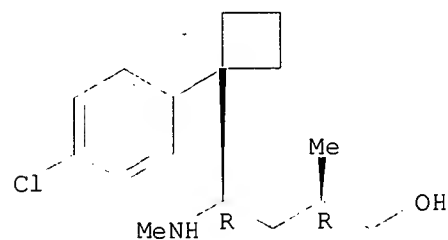


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 21 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-73-0 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)-β-methyl-δ-(methylamino)-
., (βR, δR) - (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

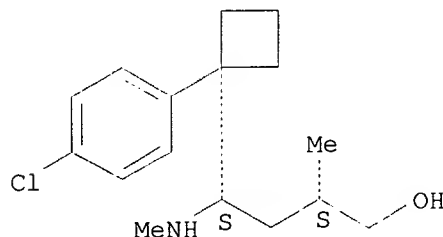
REFERENCE 1: 137:20209

L65 ANSWER 22 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-72-9 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)- β -methyl- δ -(methylamino)-
, (β S, δ S)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt)
(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-71-8
CMF C16 H24 Cl N O

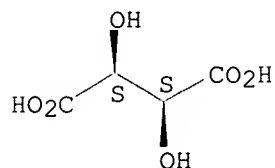
Absolute stereochemistry.



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.

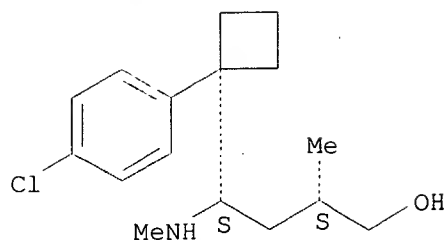


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 23 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-71-8 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)- β -methyl- δ -(methylamino)-
, (β S, δ S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



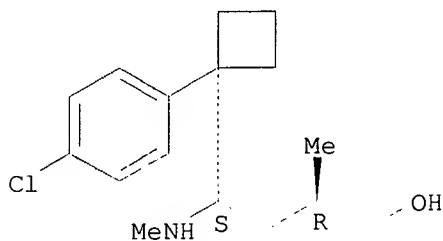
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 24 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-70-7 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)-β-methyl-δ-(methylamino)-
, hydrochloride, (βR,δS)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
CRN (435343-69-4)

Absolute stereochemistry.



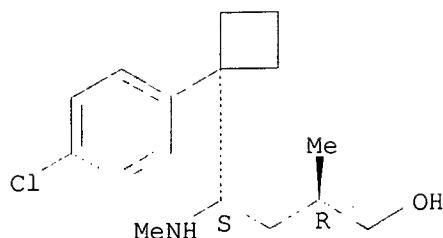
● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 25 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-69-4 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)-β-methyl-δ-(methylamino)-
, (βR,δS)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



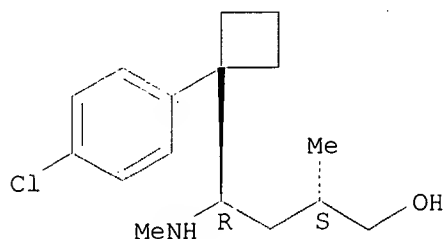
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 26 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-68-3 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)-β-methyl-δ-(methylamino)-
, hydrochloride, (βS, δR)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
CRN (435343-67-2)

Absolute stereochemistry.



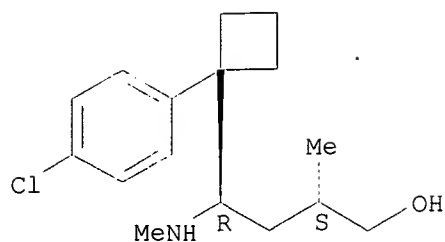
● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 27 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-67-2 REGISTRY
CN Cyclobutanebutanol, 1-(4-chlorophenyl)-β-methyl-δ-(methylamino)-
, (βS, δR)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N O
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

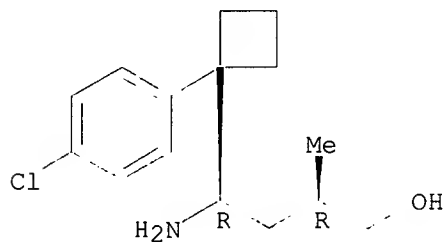
REFERENCE 1: 137:20209

L65 ANSWER 28 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-66-1 REGISTRY
CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)-β-methyl-,
(βR, 8R)-, (2S, 3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-65-0
CMF C15 H22 Cl N O

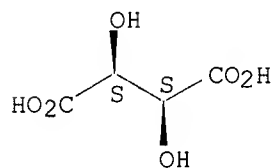
Absolute stereochemistry.



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

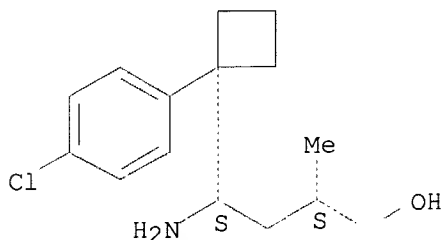
REFERENCE 1: 137:20209

L65 ANSWER 29 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-64-9 REGISTRY
CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)- β -methyl-,
(β S, δ S)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-63-8
CMF C15 H22 Cl N O

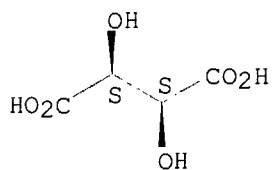
Absolute stereochemistry.



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 30 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 435343-61-6 REGISTRY
CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)- β -methyl-,
(β R, δ S)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H6 O6
SR CA

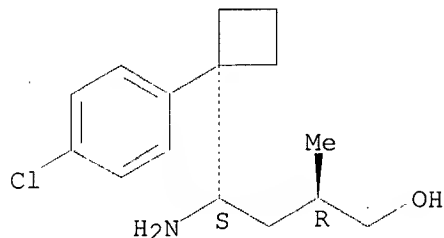
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-60-5

CMF C15 H22 Cl N O

Absolute stereochemistry.

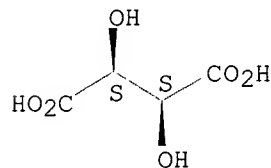


CM 2

CRN 147-71-7

CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 31 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 435343-59-2 REGISTRY

CN Cyclobutanebutanol, 8-amino-1-(4-chlorophenyl)- β -methyl-,
(β S, δ R)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI)
(CA INDEX NAME)

FS STEREOSEARCH

MF C15 H22 Cl N O . C4 H6 O6

SR CA

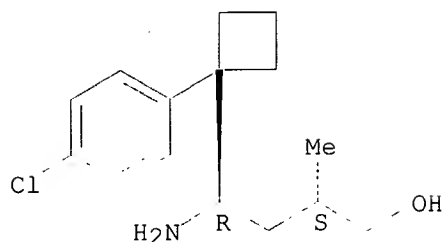
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 435343-58-1

CMF C15 H22 Cl N O

Absolute stereochemistry.

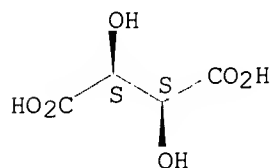


CM 2

CRN 147-71-7

CMF C4 H6 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:20209

L65 ANSWER 32 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 433305-28-3 REGISTRY

CN Butanedioic acid, 2,3-bis(phenylmethoxy)-, (2S,3S)-, compd. with
(αR)-1-(4-chlorophenyl)-N,N-dimethyl-α-(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C18 H18 O6 . C17 H26 Cl N

SR CA

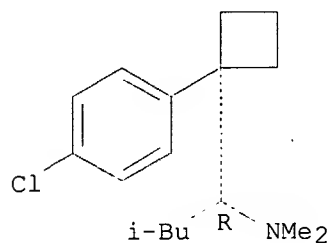
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 154752-44-0

CMF C17 H26 Cl N

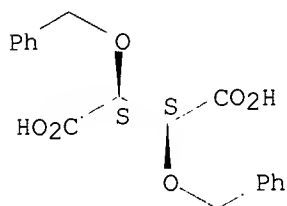
Absolute stereochemistry. Rotation (+).



CM 2

CRN 116679-01-7
CMF C18 H18 O6

Absolute stereochemistry. Rotation (+).



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

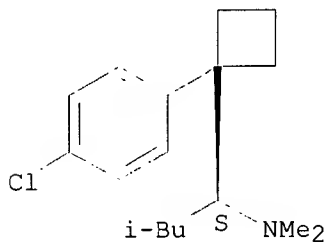
REFERENCE 1: 137:5981

L65 ANSWER 33 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 391905-99-0 REGISTRY
CN Butanedioic acid, 2,3-bis(phenylmethoxy)-, (2R,3R)-, compd. with
(α S)-1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H18 O6 . C17 H26 Cl N
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 153341-22-1
CMF C17 H26 Cl N

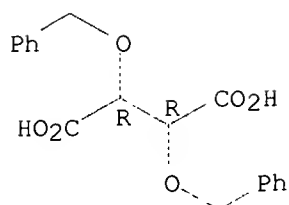
Absolute stereochemistry. Rotation (-).



CM 2

CRN 138794-81-7
CMF C18 H18 O6

Absolute stereochemistry. Rotation (-).



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:5981

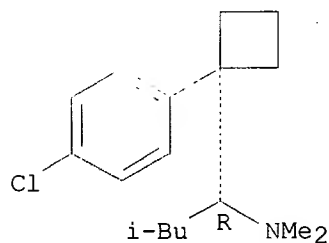
REFERENCE 2: 136:139829

L65 ANSWER 34 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 391682-39-6 REGISTRY
CN Butanedioic acid, 2,3-bis(phenylmethoxy)-, (2R,3R)-, compd. with
(α R)-1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H18 O6 . C17 H26 Cl N
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 154752-44-0
CMF C17 H26 Cl N

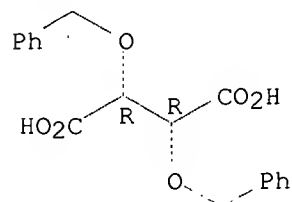
Absolute stereochemistry. Rotation (+).



CM 2

CRN 138794-81-7
CMF C18 H18 O6

Absolute stereochemistry. Rotation (-).



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

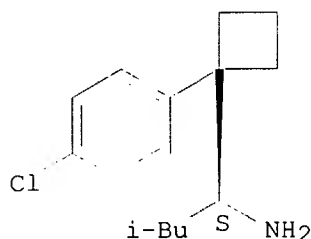
REFERENCE 1: 136:139829

L65 ANSWER 35 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 389056-74-0 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
(α S)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX
NAME)
FS STEREOSEARCH
MF C15 H22 Cl N . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 229639-57-0
CMF C15 H22 Cl N

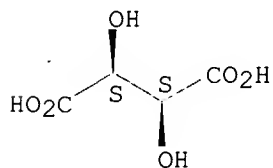
Absolute stereochemistry. Rotation (-).



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:325227

REFERENCE 2: 136:139829

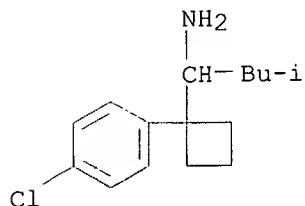
REFERENCE 3: 136:96093

L65 ANSWER 36 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 389056-73-9 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
(2R,3R)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N . C4 H6 O6

SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

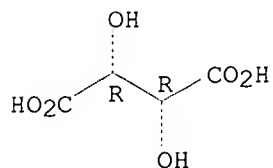
CRN 84467-54-9
CMF C15 H22 Cl N



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:139829

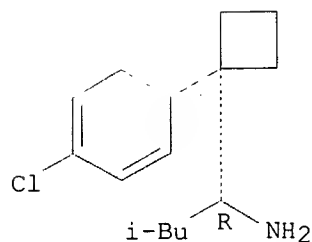
REFERENCE 2: 136:96093

L65 ANSWER 37 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 389056-70-6 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
(α R)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX
NAME)
FS STEREOSEARCH
MF C15 H22 Cl N . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 229639-56-9
CMF C15 H22 Cl N

Absolute stereochemistry. Rotation (+).

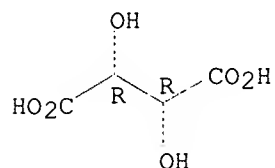


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:325227

REFERENCE 2: 136:139829

REFERENCE 3: 136:96093

L65 ANSWER 38 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 350701-71-2 REGISTRY

CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-, compd. with
 (αS)-1-(4-chlorophenyl)-N,N-dimethyl-α-(2-
 methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl-α-(2-
 methylpropyl)-, (αS)-, (2R,3R)-2,3-bis(benzoyloxy)butanedioate (1:1)
 (9CI)

FS STEREOSEARCH

MF C18 H14 O8 . C17 H26 Cl N

SR CA

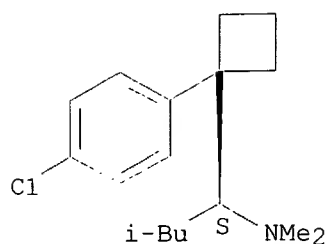
LC STN Files: CA, CAPLUS

CM 1

CRN 153341-22-1

CMF C17 H26 Cl N

Absolute stereochemistry. Rotation (-).

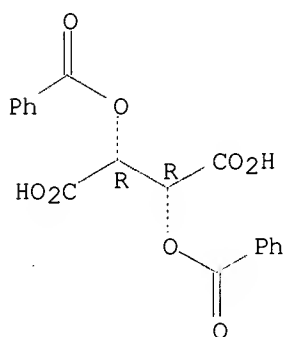


CM 2

CRN 2743-38-6

CMF C18 H14 O8

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:122299

L65 ANSWER 39 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 350502-77-1 REGISTRY

CN Formic acid, compd. with 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, formate (9CI)

MF C17 H26 Cl N . C H2 O2

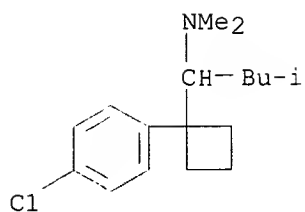
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 106650-56-0

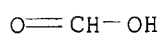
CMF C17 H26 Cl N



CM 2

CRN 64-18-6

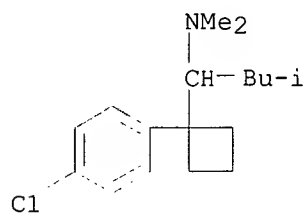
CMF C H2 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:111957

L65 ANSWER 40 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 286402-50-4 REGISTRY
 CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, monohydrate (9CI) (CA INDEX NAME)
 MF C17 H26 Cl N . H2 O
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER
 CRN (106650-56-0)



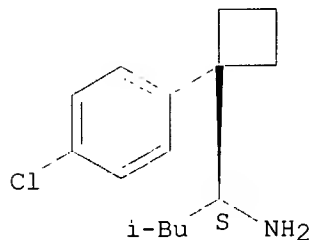
● H2O

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:129893

L65 ANSWER 41 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 262854-36-4 REGISTRY
 CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-, hydrochloride, (α S)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C15 H22 Cl N . Cl H
 SR CA
 LC STN Files: CA, CAPLUS, DRUGUPDATES, USPATFULL
 CRN (229639-57-0)

Absolute stereochemistry. Rotation (-).



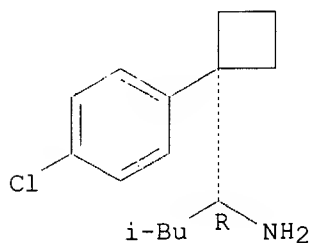
● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:256009

L65 ANSWER 42 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 262854-35-3 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
hydrochloride, (α R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N . Cl H
SR CA
LC STN Files: CA, CAPLUS, DRUGUPDATES, USPATFULL
CRN (229639-56-9)

Absolute stereochemistry. Rotation (+).



● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:256009

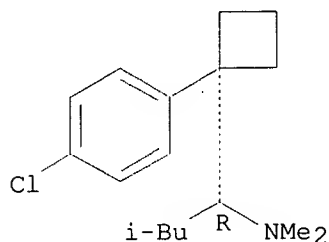
L65 ANSWER 43 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 260402-77-5 REGISTRY
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with
(α R)-1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, (α R)-, (2S,3S)-2,3-bis(benzoyloxy)butanedioate (1:1)

(9CI)
FS STEREOSEARCH
MF C18 H14 O8 . C17 H26 Cl N
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 154752-44-0
CMF C17 H26 Cl N

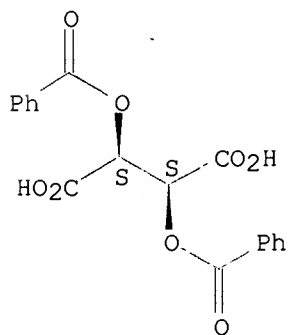
Absolute stereochemistry. Rotation (+).



CM 2

CRN 17026-42-5
CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:122299

REFERENCE 2: 132:207624

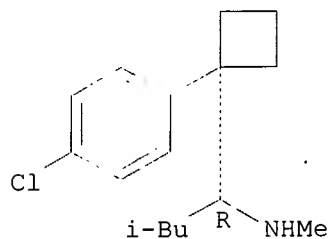
L65 ANSWER 44 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 259731-40-3 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, hydrochloride, (α R)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (R)-Desmethylsibutramine hydrochloride
FS STEREOSEARCH
MF C16 H24 Cl N . Cl H
SR CA
LC STN Files: CA, CAPLUS, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

CRN (229639-54-7)

Absolute stereochemistry. Rotation (+).



● HCl

8 REFERENCES IN FILE CA (1907 TO DATE)
 8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:262796

REFERENCE 2: 137:5981

REFERENCE 3: 136:139829

REFERENCE 4: 136:96093

REFERENCE 5: 135:122299

REFERENCE 6: 132:256009

REFERENCE 7: 132:207624

REFERENCE 8: 132:189679

L65 ANSWER 45 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 259731-39-0 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, hydrochloride, (α S)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (S)-Desmethylsibutramine hydrochloride

FS STEREOSEARCH

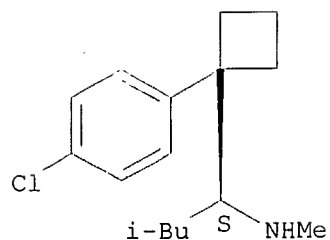
MF C16 H24 Cl N . Cl H

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CRN (229639-55-8)

Absolute stereochemistry. Rotation (-).



● HCl

7 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:262796

REFERENCE 2: 137:5981

REFERENCE 3: 136:139829

REFERENCE 4: 136:96093

REFERENCE 5: 135:122299

REFERENCE 6: 132:256009

REFERENCE 7: 132:189679

L65 ANSWER 46 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 259729-95-8 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
(α S)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX
NAME)

FS STEREOSEARCH

MF C15 H22 Cl N . C4 H6 O6

SR CA

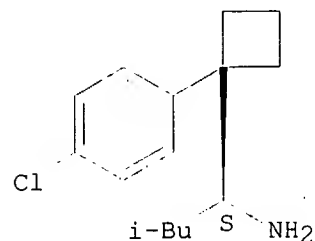
LC STN Files: CA, CAPLUS, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 229639-57-0

CMF C15 H22 Cl N

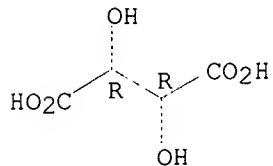
Absolute stereochemistry. Rotation (-).



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

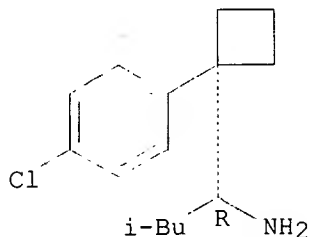
REFERENCE 1: 137:5981
REFERENCE 2: 136:139829
REFERENCE 3: 136:96093
REFERENCE 4: 135:122299
REFERENCE 5: 132:189679

L65 ANSWER 47 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 259729-93-6 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
(α R)-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX
NAME)
FS STEREOSEARCH
MF C15 H22 Cl N . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, CASREACT, DRUGUPDATES, TOXCENTER, USPAT2,
USPATFULL

CM 1

CRN 229639-56-9
CMF C15 H22 Cl N

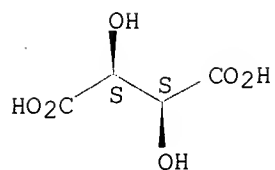
Absolute stereochemistry. Rotation (+).



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



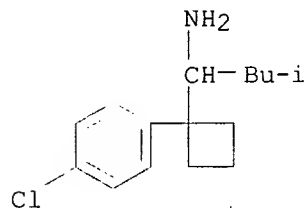
5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:39012
REFERENCE 2: 137:5981
REFERENCE 3: 136:96093
REFERENCE 4: 135:122299
REFERENCE 5: 132:189679

L65 ANSWER 48 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 259729-92-5 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
(2S,3S)-2,3-dihydroxybutanedioate (1:1) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H22 Cl N . C4 H6 O6
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

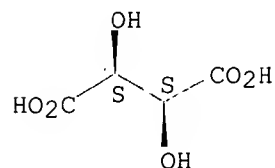
CRN 84467-54-9
CMF C15 H22 Cl N



CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:5981

REFERENCE 2: 136:139829

REFERENCE 3: 135:122299

REFERENCE 4: 132:189679

L65 ANSWER 49 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 259729-91-4 REGISTRY

CN Benzeneacetic acid, α -hydroxy-, (α S)-, compd. with
(α S)-1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, (α S)-, (α S)- α -hydroxybenzeneacetate (9CI)

FS STEREOSEARCH

MF C16 H24 Cl N . C8 H8 O3

SR CA

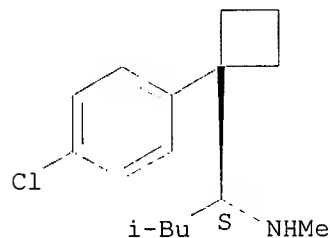
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 229639-55-8

CMF C16 H24 Cl N

Absolute stereochemistry. Rotation (-).

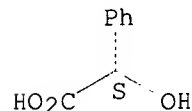


CM 2

CRN 17199-29-0

CMF C8 H8 O3

Absolute stereochemistry. Rotation (+).



6 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:262796

REFERENCE 2: 137:5981

REFERENCE 3: 136:139829

REFERENCE 4: 136:96093

REFERENCE 5: 135:122299

REFERENCE 6: 132:189679

L65 ANSWER 50 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 259729-90-3 REGISTRY

CN Benzeneacetic acid, α -hydroxy-, (α R)-, compd. with
(α R)-1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)cyclobutanemethanamine (1;1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, (α R)-, (α R)- α -hydroxybenzeneacetate (9CI)

FS STEREOSEARCH

MF C16 H24 Cl N . C8 H8 O3

SR CA

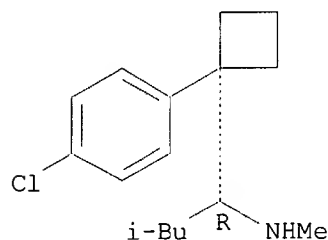
LC STN Files: CA, CAPLUS, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 229639-54-7

CMF C16 H24 Cl N

Absolute stereochemistry. Rotation (+).

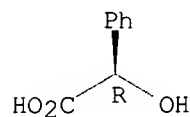


CM 2

CRN 611-71-2

CMF C8 H8 O3

Absolute stereochemistry. Rotation (-).



6 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:262796

REFERENCE 2: 137:5981

REFERENCE 3: 136:139829

REFERENCE 4: 136:96093

REFERENCE 5: 135:122299

REFERENCE 6: 132:189679

L65 ANSWER 51 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 259729-88-9 REGISTRY

CN Butanedioic acid, 2,3-dihydroxy-, bis(phenylmethyl) ester, (2S,3S)-, compd. with (α R)-1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, (α R)-, compd. with bis(phenylmethyl) (2S,3S)-2,3-dihydroxybutanedioate (1:1) (9CI)

FS STEREOSEARCH

MF C18 H18 O6 . C17 H26 Cl N

SR CA

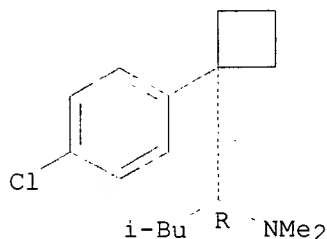
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 154752-44-0

CMF C17 H26 Cl N

Absolute stereochemistry. Rotation (+).

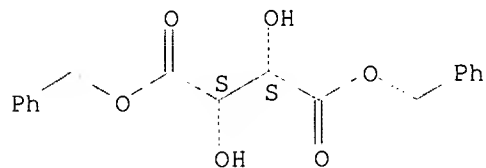


CM 2

CRN 4136-22-5

CMF C18 H18 O6

Absolute stereochemistry. Rotation (-).



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:189679

L65 ANSWER 52 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 259729-87-8 REGISTRY

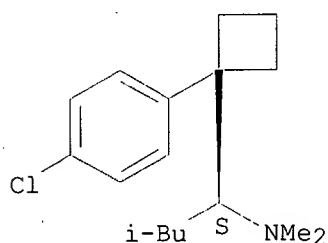
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, bis(phenylmethyl) ester, compd. with (α S)-1-(4-chlorophenyl)-N,N-dimethyl- α -(2-

methylpropyl)cyclobutanemethanamine (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, (α S)-, compd. with bis(phenylmethyl) (2R,3R)-2,3-dihydroxybutanedioate (1:1) (9CI)
FS STEREOSEARCH
MF C18 H18 O6 . C17 H26 Cl N
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 153341-22-1
CMF C17 H26 Cl N

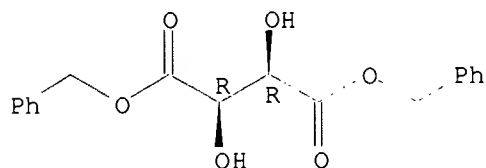
Absolute stereochemistry. Rotation (-).



CM 2

CRN 622-00-4
CMF C18 H18 O6

Absolute stereochemistry. Rotation (+).

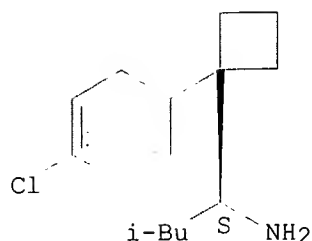


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:189679

L65 ANSWER 53 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 229639-57-0 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-, (α S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (-)-Didesmethylsibutramine
FS STEREOSEARCH
MF C15 H22 Cl N
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT, DRUGNL, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

40 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 40 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:83403
 REFERENCE 2: 138:66716
 REFERENCE 3: 138:39012
 REFERENCE 4: 137:325227
 REFERENCE 5: 137:242205
 REFERENCE 6: 137:5981
 REFERENCE 7: 136:139829
 REFERENCE 8: 136:96093
 REFERENCE 9: 135:205587
 REFERENCE 10: 135:190433

L65 ANSWER 54 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 229639-56-9 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-α-(2-methylpropyl)-,
 (αR)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Didesmethylsibutramine

FS STEREOSEARCH

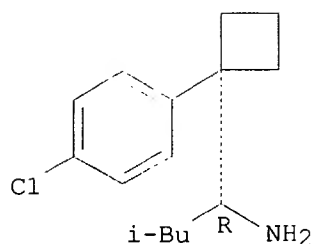
MF C15 H22 Cl N

CI COM

SR CA

LC STN Files: CA, CAPLUS, CASREACT, DRUGNL, DRUGUPDATES, TOXCENTER, USPAT2,
 USPATFULL

Absolute stereochemistry. Rotation (+).



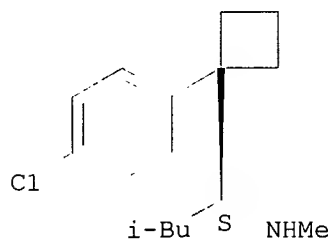
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

41 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 41 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:83403
 REFERENCE 2: 138:66716
 REFERENCE 3: 138:39012
 REFERENCE 4: 137:325227
 REFERENCE 5: 137:242205
 REFERENCE 6: 137:169260
 REFERENCE 7: 137:5981
 REFERENCE 8: 136:139829
 REFERENCE 9: 136:96093
 REFERENCE 10: 135:205587

L65 ANSWER 55 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 229639-55-8 REGISTRY
 CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, (α S)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C16 H24 Cl N
 CI COM
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (-).



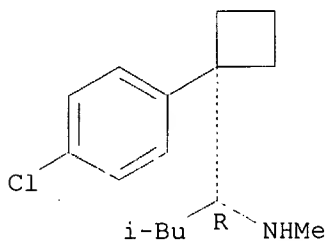
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

38 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
38 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:83403
REFERENCE 2: 138:66716
REFERENCE 3: 137:242205
REFERENCE 4: 137:5981
REFERENCE 5: 136:139829
REFERENCE 6: 136:96093
REFERENCE 7: 135:205587
REFERENCE 8: 135:190433
REFERENCE 9: 135:122299
REFERENCE 10: 134:320858

L65 ANSWER 56 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 229639-54-7 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, (α R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H24 Cl N
CI COM
SR CA
LC STN Files: CA, CAPLUS, DRUGNL, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

37 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
37 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:83403
REFERENCE 2: 138:66716
REFERENCE 3: 137:242205
REFERENCE 4: 136:139829

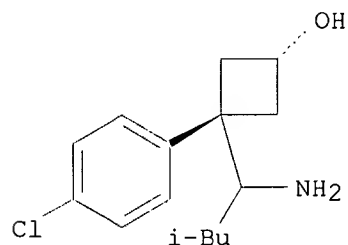
REFERENCE 5: 136:96093
REFERENCE 6: 135:205587
REFERENCE 7: 135:190433
REFERENCE 8: 135:122299
REFERENCE 9: 134:320858
REFERENCE 10: 133:261533

L65 ANSWER 57 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 186521-92-6 REGISTRY
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, cis-,
(2E)-2-butenedioate (10:9) (salt) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, cis-,
(E)-2-butenedioate (10:9) (salt)
FS STEREOSEARCH
MF C15 H22 Cl N O . 9/10 C4 H4 O4
SR CA
LC STN Files: . CA, CAPLUS

CM 1

CRN 186521-90-4
CMF C15 H22 Cl N O

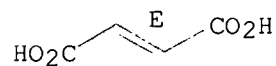
Relative stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143907

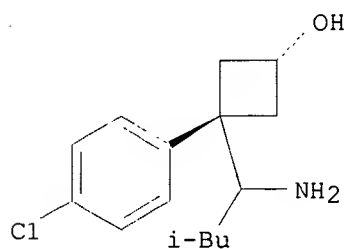
L65 ANSWER 58 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 186521-91-5 REGISTRY
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, cis-,

(2E)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, cis-,
(E)-2-butenedioate (1:1) (salt)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H4 O4
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 186521-90-4
CMF C15 H22 Cl N O

Relative stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

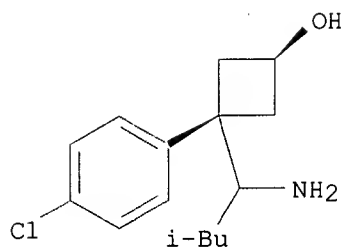
REFERENCE 1: 126:143907

L65 ANSWER 59 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 186521-89-1 REGISTRY
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, trans-,
(2E)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclobutanol, 3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)-, trans-,
(E)-2-butenedioate (1:1) (salt)
FS STEREOSEARCH
MF C15 H22 Cl N O . C4 H4 O4
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 186521-84-6
CMF C15 H22 Cl N O

Relative stereochemistry.

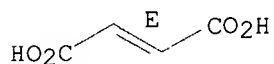


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

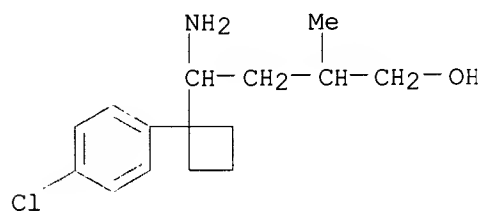


1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143907

L65 ANSWER 60 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 186521-88-0 REGISTRY
 CN Cyclobutanethanol, 8-amino-1-(4-chlorophenyl)-β-methyl-,
 hydrochloride (9CI) (CA INDEX NAME)
 MF C15 H22 Cl N O . Cl H
 SR CA
 LC STN Files: CA, CAPLUS
 CRN (186521-83-5)



● HCl

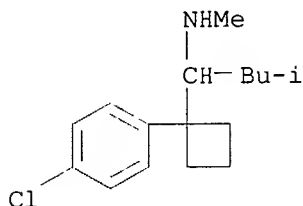
1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143907

L65 ANSWER 61 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 168835-59-4 REGISTRY
 CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl-α-(2-methylpropyl)- (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN (±)-Desmethylsibutramine

CN N-Monodemethylsibutramine
FS 3D CONCORD
MF C16 H24 Cl N
CI COM
SR CA
LC STN Files: CA, CAPLUS, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL



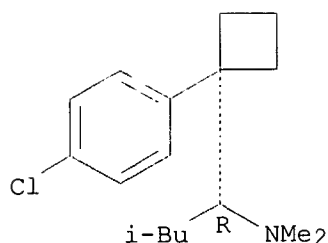
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

41 REFERENCES IN FILE CA (1907 TO DATE)
21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
41 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:83403
REFERENCE 2: 138:66716
REFERENCE 3: 137:242205
REFERENCE 4: 137:5981
REFERENCE 5: 136:139829
REFERENCE 6: 136:96093
REFERENCE 7: 135:205587
REFERENCE 8: 135:190433
REFERENCE 9: 135:122299
REFERENCE 10: 134:320858

L65 ANSWER 62 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 154752-45-1 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, hydrochloride, (α R)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (+)-Sibutramine hydrochloride
FS STEREOSEARCH
MF C17 H26 Cl N . Cl H
SR CA
LC STN Files: CA, CAPLUS, DRUGPAT, DRUGUPDATES, USPATFULL
CRN (154752-44-0)

Absolute stereochemistry. Rotation (+).



● HCl

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:314607

REFERENCE 2: 135:122299

REFERENCE 3: 132:256009

REFERENCE 4: 132:207624

REFERENCE 5: 120:280290

L65 ANSWER 63 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 154752-44-0 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, (α R)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Sibutramine

CN (R)-Sibutramine

FS STEREOSEARCH

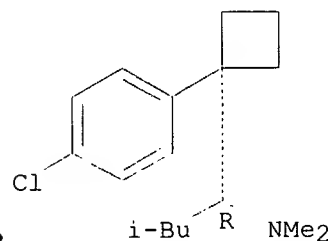
MF C17 H26 Cl N

CI COM

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, CASREACT, DRUGPAT, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

41 REFERENCES IN FILE CA (1907 TO DATE)

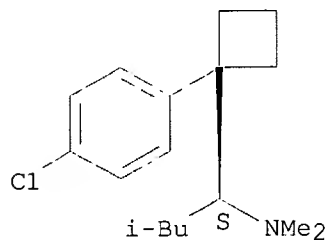
41 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:314607

REFERENCE 2: 138:83403
REFERENCE 3: 138:66716
REFERENCE 4: 137:242205
REFERENCE 5: 137:169260
REFERENCE 6: 136:139829
REFERENCE 7: 136:96093
REFERENCE 8: 136:96083
REFERENCE 9: 135:205587
REFERENCE 10: 135:190433

L65 ANSWER 64 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 153341-23-2 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, hydrochloride, (α S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (-)-Sibutramine hydrochloride
FS STEREOSEARCH
MF C17 H26 Cl N . Cl H
SR CA
LC STN Files: CA, CAPLUS, DRUGPAT, DRUGUPDATES, TOXCENTER, USPAT2, USPATEFULL
CRN (153341-22-1)

Absolute stereochemistry. Rotation (-).



● HCl

9 REFERENCES IN FILE CA (1907 TO DATE)
9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:5981
REFERENCE 2: 136:139829
REFERENCE 3: 136:96093
REFERENCE 4: 136:96083
REFERENCE 5: 135:122299
REFERENCE 6: 132:256009

REFERENCE 7: 132:207624

REFERENCE 8: 132:189679

REFERENCE 9: 120:144170

L65 ANSWER 65 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 153341-22-1 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, (α S)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (-)-sibutramine

FS STEREOSEARCH

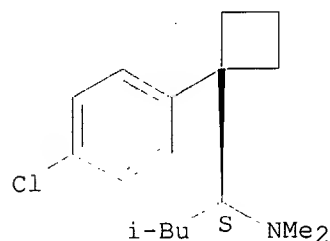
MF C17 H26 Cl N

CI COM

SR CA

LC STN Files: ADISNEWS, CA, CAPLUS, CIN, DRUGNL, DRUGPAT, DRUGUPDATES, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

38 REFERENCES IN FILE CA (1907 TO DATE)

38 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:83403

REFERENCE 2: 138:66716

REFERENCE 3: 137:242205

REFERENCE 4: 137:5981

REFERENCE 5: 136:139829

REFERENCE 6: 136:96093

REFERENCE 7: 135:205587

REFERENCE 8: 135:190433

REFERENCE 9: 135:122299

REFERENCE 10: 134:320858

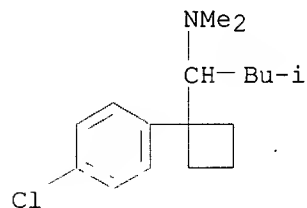
L65 ANSWER 66 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 125494-59-9 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)-, hydrochloride, monohydrate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Sibutramine hydrochloride monohydrate
MF C17 H26 Cl N . Cl H . H2 O
SR US Adopted Names Council
LC STN Files: CA, CAPLUS, CHEMCATS, CSCHEM, DRUGNL, DRUGPAT, DRUGUPDATES,
IPA, MRCK*, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
CRN (106650-56-0)



● HCl

● H2O

40 REFERENCES IN FILE CA (1907 TO DATE)
40 REFERENCES IN FILE CAPLUS (1907 TO DATE)

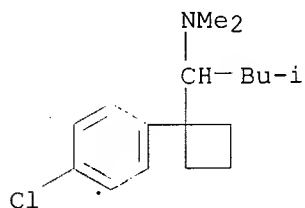
REFERENCE 1: 138:83403
REFERENCE 2: 138:66716
REFERENCE 3: 137:242205
REFERENCE 4: 135:205587
REFERENCE 5: 135:111957
REFERENCE 6: 134:320858
REFERENCE 7: 134:76405
REFERENCE 8: 134:76403
REFERENCE 9: 133:261533
REFERENCE 10: 133:247297

L65 ANSWER 67 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 106650-56-0 REGISTRY
CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl- α -(2-methylpropyl)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Medaria
CN Meridia
CN Sibutramine
FS 3D CONCORD

MF C17 H26 Cl N
CI COM
SR World Health Organization
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS,
BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGPAT, DRUGU, DRUGUPDATES,
EMBASE, IPA, MEDLINE, MRCK*, PHAR, PHARMASEARCH, PIRA, PROMT, SYNTHLINE,
TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: WHO

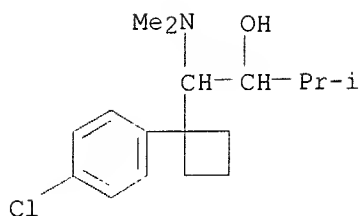


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

279 REFERENCES IN FILE CA (1907 TO DATE)
27 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
281 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:307686
REFERENCE 2: 139:255389
REFERENCE 3: 139:255308
REFERENCE 4: 139:250286
REFERENCE 5: 139:207676
REFERENCE 6: 139:206752
REFERENCE 7: 139:206736
REFERENCE 8: 139:197489
REFERENCE 9: 139:191120
REFERENCE 10: 139:190346

L65 ANSWER 68 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN
RN 106080-04-0 REGISTRY
CN Cyclobutaneethanol, 1-(4-chlorophenyl)- β -(dimethylamino)- α -(1-methylethyl)-, hydrochloride (9CI) (CA INDEX NAME)
MF C17 H26 Cl N O . Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 106:119342

L65 ANSWER 69 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 84485-00-7 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N,N-dimethyl-α-(2-methylpropyl)-, hydrochloride (9CI) (CA INDEX NAME)

OTHER NAMES:

CN BTS 54524

CN Reductil

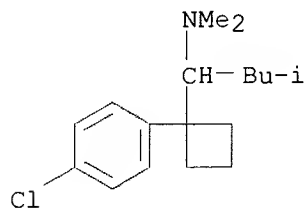
CN Sibutramine hydrochloride

DR 111394-01-5

MF C17 H26 Cl N . Cl H

LC STN Files: ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CIN, CSCHM, DIOGENES, DRUGPAT, DRUGUPDATES, IPA, PHAR, PROMT, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL

CRN (106650-56-0)



● HCl

72 REFERENCES IN FILE CA (1907 TO DATE)
72 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:185847

REFERENCE 2: 139:12247

REFERENCE 3: 138:83403

REFERENCE 4: 138:66716

REFERENCE 5: 137:288261

REFERENCE 6: 137:129878

REFERENCE 7: 137:109489

REFERENCE 8: 137:5981

REFERENCE 9: 136:401475

REFERENCE 10: 136:355482

L65 ANSWER 70 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 84484-78-6 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)-,
hydrochloride (9CI) (CA INDEX NAME)

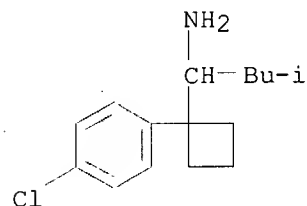
OTHER NAMES:

CN BTS 54-505

MF C15 H22 Cl N . Cl H

LC STN Files: BIOSIS, CA, CAPLUS, CHEMCATS, MEDLINE, TOXCENTER, USPATFULL

CRN (84467-54-9)



● HCl

16 REFERENCES IN FILE CA (1907 TO DATE)

16 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:348533

REFERENCE 2: 138:331532

REFERENCE 3: 137:242205

REFERENCE 4: 137:57355

REFERENCE 5: 136:355061

REFERENCE 6: 132:256009

REFERENCE 7: 132:49773

REFERENCE 8: 129:326027

REFERENCE 9: 126:143907

REFERENCE 10: 124:250580

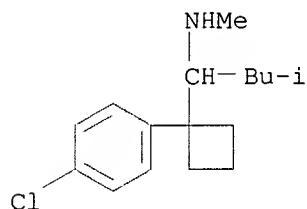
L65 ANSWER 71 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 84467-94-7 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)-N-methyl- α -(2-methylpropyl)-, hydrochloride (9CI) (CA INDEX NAME)

OTHER NAMES:

CN BTS 54-354
CN Desmethylsibutramine hydrochloride
MF C16 H24 Cl N . Cl H
LC STN Files: CA, CAPLUS, DDFU, DRUGNL, DRUGU, DRUGUPDATES, TOXCENTER,
USPAT2, USPATFULL
CRN (168835-59-4)



● HCl

15 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:57355
REFERENCE 2: 137:5981
REFERENCE 3: 136:139829
REFERENCE 4: 136:96093
REFERENCE 5: 135:122299
REFERENCE 6: 132:256009
REFERENCE 7: 132:189679
REFERENCE 8: 129:326027
REFERENCE 9: 126:143907
REFERENCE 10: 124:250580

L65 ANSWER 72 OF 72 REGISTRY COPYRIGHT 2003 ACS on STN

RN 84467-54-9 REGISTRY

CN Cyclobutanemethanamine, 1-(4-chlorophenyl)- α -(2-methylpropyl)- (9CI)
(CA INDEX NAME)

OTHER NAMES:

CN (\pm)-Didesmethylsibutramine

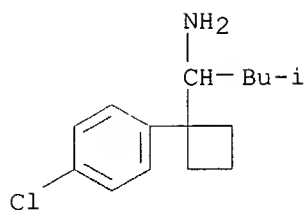
CN N-Didemethylsibutramine

FS 3D CONCORD

MF C15 H22 Cl N

CI COM

LC STN Files: CA, CAPLUS, CASREACT, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

55 REFERENCES IN FILE CA (1907 TO DATE)
 20 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 55 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:237576
 REFERENCE 2: 138:214796
 REFERENCE 3: 138:83403
 REFERENCE 4: 138:66716
 REFERENCE 5: 137:242205
 REFERENCE 6: 137:169260
 REFERENCE 7: 137:5981
 REFERENCE 8: 136:401475
 REFERENCE 9: 136:355061
 REFERENCE 10: 136:183562

=> fil hcaplus

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FILE COVERS 1907 - 7 Nov 2003 VOL 139 ISS 20
 FILE LAST UPDATED: 6 Nov 2003 (20031106/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L64 ANSWER 1 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:221497 HCAPLUS
 DN 138:231788
 TI Methods of preparing and using 2-hydroxy derivatives of
sibutramine and its metabolites
 IN **Senanayake, Chris H.; Jerussi, Thomas P.; Currie, Mark**
 G.; Fang, Qun K.; Hsu, Bob
 PA **Sepracor Inc., USA**
 SO PCT Int. Appl., 58 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|----------|-----------------|----------|
| PI | WO 2003022259 | A1 | 20030320 | WO 2002-US29014 | 20020912 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | US 2003087963 | A1 | 20030508 | US 2002-238630 | 20020911 |
| PRAI | US 2001-318672P | P | 20010913 | | |
| | US 2001-325192P | P | 20010928 | | |

OS MARPAT 138:231788
 AB The invention is directed, in part, to racemic and stereomerically pure 2-hydroxy derivs. of **sibutramine** and its metabolites, and 2-hydroxy derivs. of desmethylsibutramine and didesmethylsibutramine in particular. Methods of preparing these derivs. are also disclosed. The invention is also directed to pharmaceutical compns. and dosage forms that comprise therapeutically or prophylactically effective amts. of the compds., optionally in combination with an addnl. pharmacol. active compound. These pharmaceutical compns. and dosage forms can be used in the methods of the invention, which provide for the treatment or prevention of a variety of diseases and disorders.

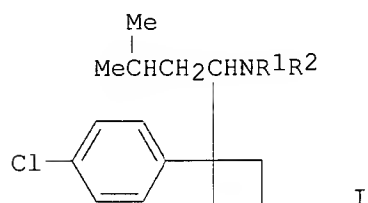
IT **106650-56-0D, Sibutramine, derivs.**
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**sibutramine** and **sibutramine** metabolite hydroxy derivative preparation, pharmaceutical compns., and therapeutic use)

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Housley | 1991 | | | US 5047432 | HCAPLUS |

L64 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:43023 HCAPLUS
 DN 138:83403
 TI **Sibutramine** and related compounds for weight loss after pregnancy
 IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
 PA USA
 SO U.S. Pat. Appl. Publ., 5 pp.
 CODEN: USXXCO
 DT Patent
 LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|--------------|-----------------|--------------|
| PI | US 2003013735 | A1 | 20030116 | US 2000-528801 | 20000317 <-- |
| PRAI | US 2000-528801 | | 20000317 <-- | | |
| GI | | | | | |



AB A compound I (R1, R2 = H, Me), or a pharmaceutically acceptable salt thereof (e.g. N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine hydrochloride (**sibutramine** hydrochloride), optionally in the form of its monohydrate), is used for aiding weight loss after pregnancy.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0,
Sibutramine 106650-56-0D, **Sibutramine**,
 enantiomers 125494-59-9, **Sibutramine** hydrochloride
 monohydrate 153341-22-1, (-)-**Sibutramine**
 154752-44-0, (+)-**Sibutramine** 168835-59-4
 168835-59-4D, enantiomers 229639-54-7
 229639-55-8 229639-56-9 229639-57-0
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (**sibutramine** and related compds. for weight loss after
 pregnancy)

L64 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:814093 HCAPLUS

DN 137:325227

TI Preparation of didesmethylsibutramine and other **sibutramine**
 derivatives

IN **Senanayake, Chris Hugh**; Han, Zhengxu; Krishnamurthy,
 Dhileepkumar; Pflum, Derek

PA **Sepracor, Inc., USA**

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

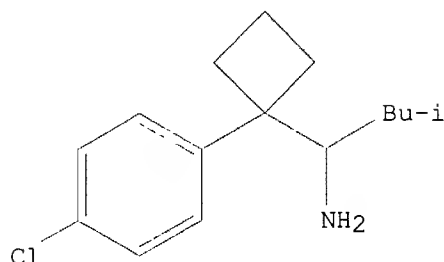
DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|--|----------|-----------------|----------|
| PI | WO 2002083631 | A1 | 20021024 | WO 2002-US11469 | 20020412 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | US 2002183554 | A1 | 20021205 | US 2002-120503 | 20020412 |

US 6610887 B2 20030826
 PRAI US 2001-283371P P 20010413
 GI



I

AB **Sibutramine** derivs. [e.g., didesmethylsibutramine (I)] were prepared For example, 1-(4-chlorophenyl)-cyclobutane-carboxaldehyde was reacted with t-butylsulfinamide to give 98% (R)-N-[1-(4-chlorophenyl)-cyclobutylmethylidene-2-Me propane] sulfinamide, which was reacted with i-BuLi in the presence of BF₃•OEt₂ to give 85% (R)-I. The effect of varying the Lewis acid/Lewis base was also studied.

IT **389056-70-6P 389056-74-0P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT **229639-56-9P 229639-57-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of didesmethylsibutramine)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bailety | 2001 | | | US 6174925 B1 | HCAPLUS |
| Scheinbaum | 1995 | | | US 5436272 A | HCAPLUS |

L64 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:808777 HCAPLUS

DN 138:237576

TI Novel diacid accelerated borane reducing agent for imines

AU Lu, Zhi-Hui; Bhongle, Nandkumar; Su, Xiping; Ribe, Seth; **Senanayake, Chris H.**

CS Chemical Process R&D, **Sepracor**, Inc., Marlborough, MA, 01752, USA

SO Tetrahedron Letters (2002), 43(47), 8617-8620

CODEN: TELEAY; ISSN: 0040-4039

Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 138:237576

AB A remarkable effect of diacids in modulating the reactivity of borane has been discovered. This novel process provides a rapid and excellent access for reduction of a variety of imines with different functionalities.

IT **84467-54-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(effect of borane reducing agents/diacid accelerators systems on chemoselective reduction of imines)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|

| | | | | |
|-------------------------------|------|-----|------|----------------------|
| =====+=====+=====+=====+===== | | | | |
| Anon | | | | Reductions in Organi |
| Anon | | | | Reductions in Organi |
| Anon | 1975 | | 135 | Synthesis |
| Anon | 1985 | | 1609 | The Sigma-Aldrich Li |
| Borner, A | 1993 | 4 | 2219 | Tetrahedron: Asymmet |
| Brown, H | 1977 | 99 | 8218 | J Am Chem Soc |
| Brwon, H | 1982 | 47 | 3153 | J Org Chem |
| Brwon, H | 1975 | | | Organic Synthesis vi |
| Buckett, W | 1988 | 12 | 575 | Prog Neuropsychophar |
| Chen, G | 2002 | 122 | 4217 | J Am Chem Soc |
| Fields, L | 1993 | 4 | 2229 | Tetrahedron: Asymmet |
| Hola, J | 1997 | | 983 | Synthesis |
| Jerussi, T | 2001 | | | PCT Appl 20020010198 |
| Knettle, B | 2001 | 3 | 2321 | Org Lett |
| Lane, C | 1974 | 39 | 3052 | J Org Chem |
| Shibata, I | | | | No publication given |
| Shimizu, M | 2001 | | 792 | Chem Lett |
| Sibi, M | 1999 | 40 | 2477 | Tetrahedron Lett |
| Steinhagen, H | 1996 | 35 | 2339 | Angew Chem, Int Ed |
| Sugiyama, E | 1998 | 63 | 383 | J Org Chem |
| Ward, J | 1992 | 3 | 849 | Tetrahedron: Asymmet |
| Williams, D | 1997 | | 523 | Synlett |

L64 ANSWER 5 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:794480 HCAPLUS

DN 138:39012

TI First Application of Tunable Alkyl or Aryl Sulfinamides to the Stereoselective Synthesis of a Chiral Amine: Asymmetric Synthesis of (R)-Didesmethylsibutramine ((R)-DDMS) Using (R)-Triethylmethylsulfinamide ((R)-TESA)

AU Han, Zhengxu; Krishnamurthy, Dhileepkumar; Pflum, Derek; Grover, Paul; Wald, Stephen A.; **Senanayake, Chris H.**

CS Chemical Process Research and Development, **Sepracor Inc.**, Marlborough, MA, 01752, USA

SO Organic Letters (2002), 4(23), 4025-4028
CODEN: ORLEF7; ISSN: 1523-7060

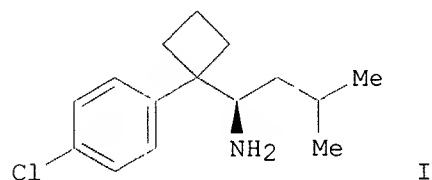
PB American Chemical Society

DT Journal

LA English

OS CASREACT 138:39012

GI



AB A highly diastereoselective addition of *i*-BuLi to a triethylmethylsulfinamide derived aldimine was used as the key step in the first asym. synthesis of (R)-didesmethylsibutramine (I), a metabolite of **sibutramine** for the potential treatment of CNS disorders.

IT 229639-56-9P

RL: RCT (Reactant); SPN. (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(stereoselective preparation of didesmethylsibutramine via addition of *iso*-Bu

amine to chiral alkyl or aryl sulfinamides)

IT 229639-57-0P 259729-93-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(stereoselective preparation of didesmethylsibutramine via addition of

iso-Bu

amine to chiral alkyl or aryl sulfinamides)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Barrow, J | 2001 | 42 | 2051 | Tetrahedron Lett | HCAPLUS |
| Borg, G | 1999 | 40 | 6709 | Tetrahedron Lett | HCAPLUS |
| Borg, G | 2001 | 42 | 1433 | Tetrahedron Lett | HCAPLUS |
| Bucket, W | 1988 | 12 | 575 | Prog Neuro-Psychoph | HCAPLUS |
| Cogan, D | 1999 | 55 | 8883 | Tetrahedron | HCAPLUS |
| Davis, F | 1998 | 27 | 13 | Chem Soc Rev | HCAPLUS |
| Davis, F | 1997 | 62 | 2555 | J Org Chem | HCAPLUS |
| Davis, F | 1999 | 64 | 3396 | J Org Chem | HCAPLUS |
| Davis, F | 2000 | 65 | 8704 | J Org Chem | HCAPLUS |
| Davis, F | 1993 | 34 | 6229 | Tetrahedron Lett | HCAPLUS |
| Enders, D | 1997 | 8 | 1895 | Tetrahedron:Asymmetr | HCAPLUS |
| Han, Z | 2002 | 124 | 7880 | J Am Chem Soc | HCAPLUS |
| Jerussi, T | 2000 | 1 | 1 | WO 0010551 | HCAPLUS |
| Kobayashi, S | 1999 | 99 | 1069 | Chem Rev | HCAPLUS |
| Krishnamurthy, D | 2002 | 43 | 2331 | Tetrahedron Lett | HCAPLUS |
| Lee, A | 2001 | 3 | 3707 | Org Lett | HCAPLUS |
| Lee, Y | 2000 | 2 | 303 | Org Lett | HCAPLUS |
| Liu, G | 1997 | 119 | 9913 | J Am Chem Soc | HCAPLUS |
| Liu, G | 1999 | 64 | 1278 | J Org Chem | HCAPLUS |
| Owens, T | 2001 | 123 | 1539 | J Am Chem Soc | HCAPLUS |
| Pflum, D | 2002 | 43 | 923 | Tetrahedron Lett | HCAPLUS |
| Plobeck, N | 2002 | 13 | 303 | Tetrahedron:Asymmetr | HCAPLUS |
| Prakash, G | 2001 | 40 | 589 | Angew Chem, Int Ed | HCAPLUS |
| Prakash, G | 2001 | 3 | 2847 | Org Lett | HCAPLUS |
| Senanayake, C | 2001 | 1 | 1 | WO 0151453 | HCAPLUS |
| Senanayake, C | 1999 | 2 | 590 | Curr Opin Drug Disco | HCAPLUS |
| Tang, T | 2001 | 66 | 8772 | J Org Chem | HCAPLUS |
| Zhou, P | 2000 | 2 | 249 | Advances in Sulfur C | |

L64 ANSWER 6 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:449632 HCAPLUS

DN 137:20209

TI Preparation of hydroxylated **sibutramine** analogs as neuronal monoamine uptake inhibitors

IN Senanayake, Chrisantha H.; Rubin, Paul D.;

Jerussi, Thomas P.

PA Sepracor Inc., USA

SO PCT Int. Appl., 115 pp.

CODEN: PIXXD2

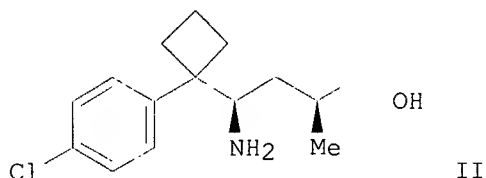
DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----|--|------|----------|-----------------|--------------|
| PI | WO 2002046138 | A2 | 20020613 | WO 2001-US47433 | 20011204 <-- |
| | WO 2002046138 | A3 | 20030123 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, | | | | |

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 2002115727 A1 20020822 US 2001-998195 20011203 <--
 AU 2002039572 A5 20020618 AU 2002-39572 20011204 <--
 EP 1353896 A2 20031022 EP 2001-987345 20011204 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRAI US 2000-250524P P 20001204 <--
 US 2000-257052P P 20001222 <--
 WO 2001-US47433 W 20011204
 OS MARPAT 137:20209
 GI



AB Title compds. 4-ClC₆H₄CR₂CH(NR₁R₂)CHR₄CHMeCH₂R₃ (I; R₂ = CH₂CHR₅CH₂; R₁, R₂ = H or alkyl; ≥1 of R₃-R₅ = OH or alkoxy and the others = H, oh alkoxy) were prepared Thus, 1-(4-chlorophenyl)cyclobutanecarboxaldehyde was condensed with (R)-Me₂CSO₂NH₂ and the product subjected to asym. addition by chiral O-protected LiCH₂CHMeCH₂OH to give, e.g., title compound II. Data for biol. activity of I were given.

IT 435343-58-1P 435343-59-2P 435343-60-5P
 435343-61-6P 435343-63-8P 435343-64-9P
 435343-65-0P 435343-66-1P 435343-67-2P
 435343-68-3P 435343-69-4P 435343-70-7P
 435343-71-8P 435343-72-9P 435343-73-0P
 435343-74-1P 435343-76-3P 435343-78-5P
 435343-80-9P 435343-82-1P 435343-83-2P
 435343-84-3P 435343-86-5P 435343-88-7P
 435343-89-8P 435343-93-4P 435343-94-5P
 435343-95-6P 435343-96-7P 435343-97-8P
 435343-98-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hydroxylated **sibutramine** analogs as neuronal monoamine uptake inhibitors)

L64 ANSWER 7 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:425451 HCAPLUS

DN 137:5981

TI Preparation of **sibutramine** metabolites as norepinephrine and serotonin reuptake inhibitors.

IN **Senanayake, Chrisantha Hugh**; Fang, Qun Kevin; Han, Zhengxu; Krishnamurthy, Dhileepkumar

PA **Sepracor** Inc., USA

SO U.S., 22 pp., Cont.-in-part of U. S. Ser. No. 372,158.

CODEN: USXXAM

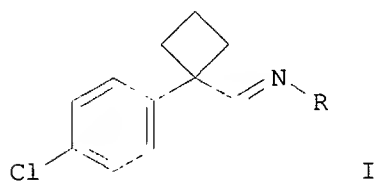
DT Patent

LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|--------------|
| PI | US 6399826 | B1 | 20020604 | US 2000-480889 | 20000111 <-- |

US 6331571 B1 20011218 US 1999-372158 19990811 <--
 WO 2001051453 A1 20010719 WO 2001-US762 20010110 <--
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
 HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
 ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 EP 1246789 A1 20021009 EP 2001-901941 20010110 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 JP 2003519675 T2 20030624 JP 2001-551835 20010110 <--
 US 2002183281 A1 20021205 US 2002-160033 20020604 <--
 US 2003195261 A1 20031016 US 2003-395298 20030325 <--
 PRAI US 1999-372158 A2 19990811 <--
 US 1998-97665P P 19980824 <--
 US 1998-99306P P 19980902 <--
 US 2000-480889 A 20000111 <--
 WO 2001-US762 W 20010110
 US 2001-806 A3 20011204
 OS CASREACT 137:5981; MARPAT 137:5981
 GI



- AB Several title compds. were prepared Thus, (-)-**sibutramine** was heated with di-Et azodicarboxylate in PhMe at 50° for 12 h to give (-)-desmethylsibutramine. (+)-Desmethylsibutramine inhibited norepinephrine uptake at human recombinant NE sites with IC₅₀ = 4 nM. Intermediates (I; R = alkyl) are claimed.
- IT **259731-39-0P**, (S)-Desmethylsibutramine hydrochloride
259731-40-3P, (R)-Desmethylsibutramine hydrochloride
 RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of **sibutramine** metabolites as norepinephrine and serotonin reuptake inhibitors)
- IT **84467-54-9P**, (±)-Didesmethylsibutramine **168835-59-4P**, (±)-Desmethylsibutramine
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of **sibutramine** metabolites as norepinephrine and serotonin reuptake inhibitors)
- IT **84467-94-7P**, Desmethylsibutramine hydrochloride
229639-55-8P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of **sibutramine** metabolites as norepinephrine and serotonin reuptake inhibitors)
- IT **229639-56-9**, (+)-Didesmethylsibutramine **229639-57-0**,

(-)-Didesmethylsibutramine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

(preparation of **sibutramine** metabolites as norepinephrine and
serotonin reuptake inhibitors)

IT 84485-00-7P, Sibutramine hydrochloride

106650-56-0P, Sibutramine 153341-22-1P, (-)-

Sibutramine 153341-23-2P 259729-90-3P

259729-91-4P 259729-92-5P 259729-93-6P

259729-95-8P 391905-99-0P 433305-28-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of **sibutramine** metabolites as norepinephrine and
serotonin reuptake inhibitors)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
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| Anon | 1998 | | 2520 | Physician's Desk Ref | |
| Anon | 1998 | | 2958 | Physician's Desk Ref | |
| Anon | 1999 | | 1054 | Physician's Desk Ref | |
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| Anon | 1999 | | 1369 | Physician's Desk Ref | |
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| Anon | 1999 | | 1494 | Physician's Desk Ref | |
| Anon | 1999 | | 1641 | Physician's Desk Ref | |
| Anon | 1999 | | 2004 | Physician's Desk Ref | |
| Anon | 1999 | | 2075 | Physician's Desk Ref | |
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| Anon | 1999 | | 2516 | Physician's Desk Ref | |
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L64 ANSWER 8 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:314938 HCAPLUS

DN 136:340674

TI Alpha-aryl ethanolamines and their use as beta-3 adrenergic receptor agonists, for treatment of diseases and disorders, for increasing lean meat content in animals, and for use in combination with other antiobesity agents

IN Day, Robert Francis; Lafontaine, Jennifer Anne

PA Pfizer Products Inc., USA

SO PCT Int. Appl., 101 pp.

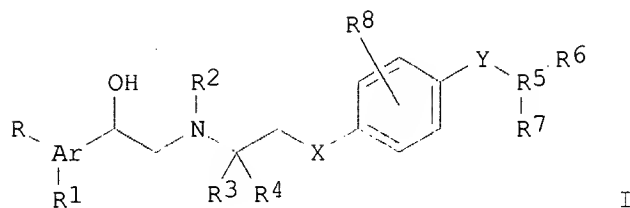
CODEN: PIXXD2

DT Patent

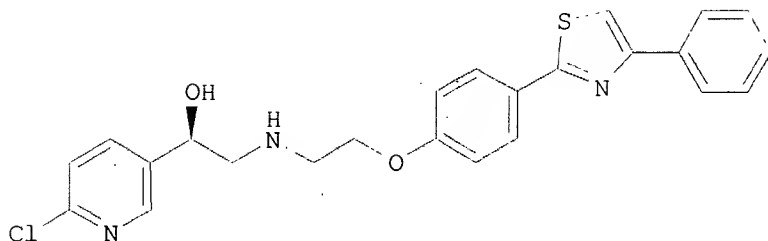
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|-------------------|--|----------|-----------------|----------|-----|
| PI | WO 2002032897 | A1 | 20020425 | WO 2001-IB1847 | 20011004 | <-- |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
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| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
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| | US 2001-981551 | A3 | 20011017 | | | |
| OS | MARPAT 136:340674 | | | | | |
| GI | | | | | | |



I



II

AB The invention provides $\beta 3$ -adrenergic receptor agonists (no data) of structural formula I [wherein Ar = pyridyl, oxazolyl, thiazolyl, or Ph; R = H, OH, oxo, halo, CF₃, alkyl, alkoxy, cycloalkyl, NH₂ or certain derivs., sulfonyl groups; R₁ = H, alkyl, halo, alkoxy, OH; R₂, R₃, R₄ = H, alkyl; R₅ = 5- or 6-membered heterocycle with 1-4 N/O/S atoms; R₆, R₇ = H, halo, cyano, oxo, acyl, CO₂H or derivs., OH, NH₂ or derivs., (un)substituted alkyl, etc.; R₈ = H, alkyl, halo; X = direct bond or O; Y = direct bond, alkylene, OCH₂, CH₂O, or O; with provisos], as well as the stereoisomers and prodrugs thereof, and the pharmaceutically acceptable salts of the compds., stereoisomers, and prodrugs. The invention further provides intermediates useful in the preparation of I, as well as therapeutic combinations of I and/or their stereoisomers/prodrugs/salts, with (other) anti-obesity agents. Over 60 invention compds. and 40 intermediates are named individually in claims. Exemplary preps. of many intermediates and several invention compds. are given. For instance, reaction of (R)-2-chloro-5-oxiranylpiperidine with 2-[4-(4-phenylthiazol-2-yl)phenoxy]ethylamine (preparation given) in EtOH at 80° gave 50% title compound (R)-II.

IT **106650-56-0, Sibutramine**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coadministration with; preparation of α -arylethanamines as $\beta 3$ -adrenergic receptor agonists, useful as drugs and agents for increasing lean meat content in animals)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
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L64 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:231253 HCAPLUS
DN 137:262796

TI First practical synthesis of enantiomerically pure (R)- and (S)-desmethylsibutramine (DMS) and unambiguous determination of their absolute configuration by single-crystal X-ray analysis

AU Han, Zhengxu; Krishnamurthy, Dhileepkumar; Pflum, Derek; Fang, Qun K.; Butler, Hal; Cameron, T. Stanley; Wald, Stephen A.; Senanayake, Chris H.

CS Chemical Process Research and Development, **Sepracor** Inc., Marlborough, MA, 01752, USA

SO Tetrahedron: Asymmetry (2002), 13(2), 107-109
CODEN: TASYE3; ISSN: 0957-4166

PB Elsevier Science Ltd.

DT Journal

LA English

AB A practical synthesis of enantiomerically pure (R)-desmethylsibutramine [(R)-DMS] and (S)-desmethylsibutramine [(S)-DMS] is outlined along with an improved synthesis of racemic desmethylsibutramine. This route was used for kilo-scale production of enantiomerically pure (R)- and (S)-DMS. Racemic desmethylsibutramine was resolved with either (R)- or (S)-mandelic acid, and the absolute stereochem. of DMS was determined by single X-ray crystallog.

of its mandelate salt.

IT **259729-91-4P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and resolution of desmethylsibutramine by addition of sec-butylmagnesium chloride to (chlorophenyl)cyclobutylcarbonitrile and subsequent resolution with mandelic acid)

IT **259731-39-0P 259731-40-3P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation and resolution of desmethylsibutramine by addition of sec-butylmagnesium chloride to (chlorophenyl)cyclobutylcarbonitrile and subsequent resolution with mandelic acid)

IT **259729-90-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, crystal structure and resolution of desmethylsibutramine by addition of sec-butylmagnesium chloride to (chlorophenyl)cyclobutylcarbonitrile and subsequent resolution with mandelic acid)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
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L64 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:197459 HCAPLUS

DN 137:169260

TI First asymmetric synthesis of (R)-desmethylsibutramine

AU Krishnamurthy, Dhileepkumar; Han, Zhengxu; Wald, Stephen A.;
Senanayake, Chris H.

CS **Sepracor** Inc., Chemical Process Research and Development,

Marlborough, MA, 01752, USA
 SO Tetrahedron Letters (2002), 43(13), 2331-2333
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 137:169260
 AB A catalytic enantioselective addition of iso-Bu lithium to
 N-[[1-(4-chlorophenyl)cyclobutyl]methylene]methanamine is used as the key
 step in the asym. synthesis of (R)-desmethylsibutramine [i.e.,
 (α R)-1-(4-chlorophenyl)- α -(2-methylpropyl)cyclobutanemethanami
 ne], a single enantiomer version of a pharmacol. active metabolite of
 anti-obesity drug **sibutramine** (Meridia).
 IT **229639-56-9P**, (R)-Desmethylsibutramine
 RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP
 (Preparation)
 (asym. synthesis of (R)-desmethylsibutramine)
 IT **154752-44-0**, (R)-**Sibutramine**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (asym. synthesis of (R)-desmethylsibutramine)
 IT **84467-54-9P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
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| Fang, Q | 1999 | 1 | 4477 | Tetrahedron: Asymmet | HCAPLUS |
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L64 ANSWER 11 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:72805 HCAPLUS

DN 136:139829

TI Compositions comprising **sibutramine** metabolites in combination
 with phosphodiesterase inhibitors

IN **Jerussi, Thomas P.; Senanayake, Chrisantha H.; Fang,**
 Qun K.

PA USA

SO U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Ser. No. 662,135.
 CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|--------------|
| PI | US 2002010198 | A1 | 20020124 | US 2001-770663 | 20010129 <-- |
| | US 6476078 | B2 | 20021105 | | |
| | US 6331571 | B1 | 20011218 | US 1999-372158 | 19990811 <-- |
| | US 6339106 | B1 | 20020115 | US 2000-662135 | 20000914 <-- |
| | WO 2002060424 | A2 | 20020808 | WO 2002-US2040 | 20020123 |
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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 PRAI US 1999-372158 A2 19990811 <--
 US 2000-662135 A2 20000914 <--
 US 1998-97665P P 19980824 <--
 US 1998-99306P P 19980902 <--
 US 2001-770663 A 20010129
 US 2001-806 A3 20011204

AB Methods are disclosed for the treatment and prevention of disorders and conditions such as, but are not limited to: eating disorders; weight gain; obesity; irritable bowel syndrome; obsessive-compulsive disorders; platelet adhesion; apnea; affective disorders such as attention deficit disorders, depression, and anxiety; male and female sexual function disorders; restless leg syndrome; osteoarthritis; substance abuse including nicotine and cocaine addiction; narcolepsy; pain such as neuropathic pain, diabetic neuropathy, and chronic pain; migraines; cerebral function disorders; chronic disorders such as premenstrual syndrome; and incontinence. Pharmaceutical compns. and dosage forms are also disclosed which comprise a racemic or optically pure **sibutramine** metabolite and an optional drug. **Sibutramine** free base was prepared by the reaction of chlorbenzyl nitrile dibromopropane in the presence of NaH in DMSO, followed by the treatment of the resulting 1-(4-chlorophenyl)cyclobutanecarbonitrile with isobutylmagnesium bromide and finally treatment with HCHO. The free base was resolved into the (R) and (S) isomers and converted into their metabolites. Hard gelatin capsules contained racemic or optically pure **sibutramine** metabolite 5.0, microcryst. cellulose 90.0, pregelatinized starch 100.3, croscarmellose sodium 7.0, and Mg stearate 0.2 mg.

IT 153341-22-1P
 RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)

(compns. comprising **sibutramine** metabolites in combination with phosphodiesterase inhibitor)

IT 106650-56-0P, **Sibutramine** 154752-44-0P
 168835-59-4P 229639-54-7P 229639-55-8P
 229639-56-9P 229639-57-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(compns. comprising **sibutramine** metabolites in combination with phosphodiesterase inhibitor)

IT 84467-54-9P 84467-94-7P 84485-00-7P
 153341-23-2P 259729-90-3P 259729-91-4P
 259729-92-5P 259729-95-8P 259731-39-0P
 259731-40-3P 389056-70-6P 389056-73-9P
 389056-74-0P 391682-39-6P 391905-99-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(compns. comprising **sibutramine** metabolites in combination with phosphodiesterase inhibitor)

DN 136:96083
 TI Methods of using and compositions comprising (+)-**sibutramine**
 optionally in combination with other pharmacologically active compounds
 IN Young, James W.; Jerussi, Thomas P.
 PA USA
 SO U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U. S. Ser. No. 442,263.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | US 2002006964 | A1 | 20020117 | US 2001-770393 | 20010129 <-- |
| | WO 2002060427 | A2 | 20020808 | WO 2002-US2038 | 20020123 |
| | WO 2002060427 | A3 | 20030213 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2003078303 | A1 | 20030424 | US 2002-295871 | 20021118 <-- |
| PRAI | US 1995-442263 | A2 | 19950516 | <-- | |
| | US 2001-770393 | A | 20010129 | | |
| AB | This invention encompasses methods for the treatment and prevention of disorders that include, but are not limited to, eating disorders; weight gain; obesity; irritable bowel syndrome; obsessive-compulsive disorders; platelet adhesion; apnea; affective disorders such as attention deficit disorders, depression, and anxiety; male and female sexual function disorders; restless leg syndrome; osteoarthritis; substance abuse including nicotine and cocaine addiction; narcolepsy; pain such as neuropathic pain, diabetic neuropathy, and chronic pain; migraines; cerebral function disorders; chronic disorders such as premenstrual syndrome; and incontinence. The invention further encompasses pharmaceutical compns. and dosage forms which comprise optically pure (+)- sibutramine , optionally in combination with a phosphodiesterase inhibitor or a lipase inhibitor. | | | | |
| IT | 84485-00-7P, Sibutramine hydrochloride 153341-23-2P, (-)-Sibutramine hydrochloride RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (therapeutic compns. comprising (+)- sibutramine and optionally in combination with other pharmacol. active compds.) | | | | |
| IT | 154752-44-0P, (+)-Sibutramine RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (therapeutic compns. comprising (+)- sibutramine and optionally in combination with other pharmacol. active compds.) | | | | |
| IT | 106650-56-0P, Sibutramine RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation) (therapeutic compns. comprising (+)- sibutramine and optionally in combination with other pharmacol. active compds.) | | | | |
| IT | 84467-54-9P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (therapeutic compns. comprising (+)- sibutramine and optionally in combination with other pharmacol. active compds.) | | | | |

L64 ANSWER 13 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:51988 HCAPLUS
 DN 136:107551
 TI Method of using and compositions comprising (-) **sibutramine**
 optionally in combination with other pharmacologically active compounds
 IN Young, James W.; Jerussi, Thomas P.
 PA USA
 SO U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 721,669.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|--|----------|-----------------|--------------|
| PI | US 2002006963 | A1 | 20020117 | US 2001-770665 | 20010129 <-- |
| | WO 2002060428 | A2 | 20020808 | WO 2002-US2039 | 20020123 |
| | WO 2002060428 | A3 | 20021219 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |

PRAI US 1992-903040 B1 19920623 <--
 US 1995-461608 B1 19950605 <--
 US 2000-721669 A2 20001127 <--
 US 2001-770665 A 20010129

AB This invention encompasses methods for the treatment and prevention of disorders that include, but are not limited to, eating disorders; weight gain; obesity; irritable bowel syndrome; obsessive-compulsive disorders; platelet adhesion; apnea; affective disorders such as attention deficit disorders, depression, and anxiety; male and female sexual function disorders; restless leg syndrome; osteoarthritis; substance abuse including nicotine and cocaine addiction; narcolepsy; pain such as neuropathic pain, diabetic neuropathy, and chronic pain; migraines; cerebral function disorders; chronic disorders such as premenstrual syndrome; and incontinence. The invention further encompasses pharmaceutical compns. and dosage forms which comprise optically pure (-) **sibutramine**, optionally in combination with a phosphodiesterase inhibitor or a lipase inhibitor. A solution of 21.7 g L-dibenzyltartaric acid ("L-DBTA") in Et acetate was added to a solution of 12.3 g racemic **sibutramine** in Et acetate and the reaction mixture was heated to reflux and cooled to room temperature. The white precipitate was collected and

the

solid was then suspended in Et acetate and heated at reflux for 30 min. The solid was collected and further crystallized in iso-Pr alc. to give 11.3 g of (-)-**sibutramine** L-DBTA (yield 76%). Free base was obtained by treatment of (-)-**sibutramine** L-DBTA with saturated aqueous NaHCO₃ and extracted with chloroform. A pharmacol. study was conducted to determine the relative potency, comparative efficacy, binding affinity, and toxicity of the enantiomers and racemic mixture of **sibutramine**. A capsule contained (-) **sibutramine** 10.0, lactose 70.0, corn starch 19.5, and magnesium stearate 0.05 mg.

IT 84485-00-7P, **Sibutramine** hydrochloride
 106650-56-0P, **Sibutramine**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(method of using and compns. comprising (-) **sibutramine**)

optionally in combination with other pharmacol. active compds.)
 IT **84467-54-9P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (method of using and compns. comprising (-) **sibutramine**
 optionally in combination with other pharmacol. active compds.)

L64 ANSWER 14 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:39607 HCAPLUS
 DN 136:96093
 TI Methods and compositions using a **sibutramine** metabolite or other
 dopamine uptake inhibitors for the treatment and prevention of sexual
 dysfunction
 IN **Jerussi, Thomas P.; Senanayake, Chrisantha H.; Fang,**
 Qun K.
 PA **Sepracor, Inc., USA**
 SO U.S., 21 pp., Cont.-in-part of U.S. Ser. No. 372,158.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|-----------------|------|----------|--|--------------|--|
| PI | US 6339106 | B1 | 20020115 | US 2000-662135 | 20000914 <-- | |
| | US 6331571 | B1 | 20011218 | US 1999-372158 | 19990811 <-- | |
| | US 2002010198 | A1 | 20020124 | US 2001-770663 | 20010129 <-- | |
| | US 6476078 | B2 | 20021105 | | | |
| | WO 2002022114 | A2 | 20020321 | WO 2001-US28598 | 20010913 <-- | |
| | W: | | | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | RW: | | | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | |
| | AU 2001089062 | A5 | 20020326 | AU 2001-89062 | 20010913 <-- | |
| | EP 1320360 | A1 | 20030625 | EP 2001-968848 | 20010913 <-- | |
| | R: | | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | |
| | US 2003096792 | A1 | 20030522 | US 2002-278097 | 20021023 <-- | |
| | US 2003195261 | A1 | 20031016 | US 2003-395298 | 20030325 <-- | |
| PRAI | US 1999-372158 | A2 | 19990811 | <-- | | |
| | US 1998-97665P | P | 19980824 | <-- | | |
| | US 1998-99306P | P | 19980902 | <-- | | |
| | US 2000-662135 | A2 | 20000914 | <-- | | |
| | US 2001-770663 | A3 | 20010129 | | | |
| | WO 2001-US28598 | W | 20010913 | | | |
| | US 2001-806 | A3 | 20011204 | | | |

AB Methods are disclosed for the treatment and prevention of sexual dysfunction. The methods comprise the administration of a dopamine reuptake inhibitor and optionally an addnl. pharmacol. active compound. Pharmaceutical compns. and dosage forms are also disclosed that comprise a dopamine reuptake inhibitor and optionally an addnl. pharmacol. active compound. Preferred dopamine reuptake inhibitors are racemic or optically pure **sibutramine** metabolites and pharmaceutically acceptable salts, solvates, and clathrates thereof. Preferred addnl. pharmacol. active compds. include drugs that affect the central nervous system, such as 5-HT3 antagonists. Preparation of **sibutramine** metabolites is described.

IT **153341-22-1P, (-)-Sibutramine**
 RL: PAC (Pharmacological activity); PUR (Purification or recovery); RCT

(Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 154752-44-0P, (+)-**Sibutramine**

RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 84467-54-9P 168835-59-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 229639-54-7 229639-55-8 229639-56-9 229639-57-0

RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 106650-56-0 168835-59-4D, clathrates

229639-54-7D, clathrates 229639-55-8D, clathrates

229639-56-9D, clathrates 229639-57-0D, clathrates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 389056-70-6P

RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 153341-23-2P, (-)-**Sibutramine** hydrochloride

RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 259729-95-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 84467-94-7P 259729-90-3P 259729-91-4P

259729-93-6P 389056-73-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

IT 259731-39-0P 259731-40-3P 389056-74-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(**sibutramine** metabolite or other dopamine uptake inhibitors for treatment and prevention of sexual dysfunction)

RETABLE

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| Anon | 1999 | | 1369 | Physician's Desk Ref | |
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| Anon | 1999 | | 2516 | Physician's Desk Ref | |
| Anon | 1999 | | 2688 | Physician's Desk Ref | |
| Anon | 1999 | | 2701 | Physician's Desk Ref | |
| Anon | 1999 | | 2720 | Physician's Desk Ref | |
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| Anon | 1999 | | 2886 | Physician's Desk Ref | |
| Anon | 1999 | | 2908 | Physician's Desk Ref | |
| Anon | 1999 | | 3092 | Physician's Desk Ref | |
| Anon | 1999 | | 3101 | Physician's Desk Ref | |
| Anon | 1999 | | 3224 | Physician's Desk Ref | |
| Anon | 1999 | | 3267 | Physician's Desk Ref | |
| Anon | 1999 | | 3307 | Physician's Desk Ref | |
| Anon | 1999 | | 3383 | Physician's Desk Ref | |
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L64 ANSWER 15 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:640598 HCAPLUS

TI Studies toward the practical synthesis of optically pure
desmethyisibutramine

AU Krishnamurthy, Dhileepkumar; Han, Zhengxu; Pflum, Derek; Fang, Qun K.;

Grover, Paul; Butler, Hal; Kessler, Donald W.; Wald, Stephen A.;
Senanayake, Chris

CS Chemical Process Research and Development, **Sepracor** Inc,
 Marlborough, MA, 01752, USA

SO Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United
 States, August 26-30, 2001 (2001), ORGN-235 Publisher: American Chemical
 Society, Washington, D. C.

CODEN: 69BUZP

DT Conference; Meeting Abstract

LA English

AB Desmethylsibutramine (DMS) 1 is a pharmacol. active metabolite of
sibutramine 2, a new class of compound for the treatment of obesity.
 In order to evaluate the effectiveness of DMS towards various indications,
 kilo quantities of both (R) and (S)-DMS in optically pure form are
 required. A practical second-generation synthesis of the optically pure
 (R)-DMS and (S)-DMS will be presented along with the improved synthesis
 for racemic desmethylsibutramine. This route was used for large-scale
 production of optically pure (R)- and (S)-DMS. Preliminary results from the
 catalytic asym. synthesis of DMS will also be presented.

L64 ANSWER 16 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:526047 HCAPLUS

DN 135:122299

TI Synthesis of racemic and optically pure desmethylsibutramine,
 didesmethylsibutramine, oral formulations comprised thereof and their use
 as dopamine reuptake inhibitors

IN **Senanayake, Chrisantha H.**; Fang, Qun K.; Han, Zhengxu;
 Krishnamurthy, Dhileepkumar

PA **Sepracor** Inc., USA

SO PCT Int. Appl., 59 pp.

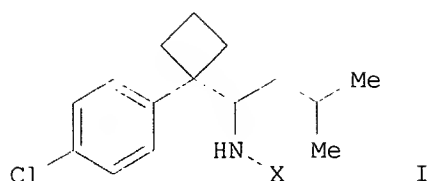
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|-------------------|--|----------|-----------------|----------|-----|
| PI | WO 2001051453 | A1 | 20010719 | WO 2001-US762 | 20010110 | <-- |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 6399826 | B1 | 20020604 | US 2000-480889 | 20000111 | <-- |
| | EP 1246789 | A1 | 20021009 | EP 2001-901941 | 20010110 | <-- |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2003519675 | T2 | 20030624 | JP 2001-551835 | 20010110 | <-- |
| PRAI | US 2000-480889 | A | 20000111 | | | <-- |
| | US 1999-372158 | A2 | 19990811 | | | <-- |
| | WO 2001-US762 | W | 20010110 | | | |
| OS | MARPAT 135:122299 | | | | | |
| GI | | | | | | |



AB Racemic and optically pure **sibutramine** metabolites, desmethyl- (I, X = Me) and didesmethylsibutramine I (X = H; II) were prepared. Addition of i-butylmagnesium bromide to 1-(4-chlorophenyl)cyclobutanecarbonitrile followed by MeOH quench and treatment with NaBH₄ produced II. II was converted to the N-formyl derivative and reduced to give I. Resolution with (R)-mandelic acid furnished (R)-I. **Sibutramine** isomers are inhibitors of norepinephrine (NE) and 5-HT uptake and bind to muscarinic receptors while metabolites I and II were found to have affinity for NE, 5-HT and negligible activity at muscarinic sites. At NE reuptake sites, (+)-I had IC₅₀ = 4 nM (vs. (-)-I IC₅₀ = 870 nM), and reuptake site binding selectivity for NE/5-HT = 12. A lactose free solid oral dosage hard gelatin capsule and tablet formulation was provided. Methods to treat neuropathic pain and diabetic peripheral neuropathy were claimed.

IT 84467-54-9P 84467-94-7P 84485-00-7P,
Sibutramine hydrochloride 106650-56-0P,
Sibutramine 153341-22-1P, (-)-**Sibutramine**
 153341-23-2P, (-)-**Sibutramine** hydrochloride
 154752-44-0P, (+)-**Sibutramine** 154752-45-1P,
 (+)-**Sibutramine** hydrochloride 168835-59-4P
 229639-54-7P 229639-55-8P 229639-56-9P
 229639-57-0P 259731-39-0P 259731-40-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of racemic and optically pure desmethylsibutramine, didesmethylsibutramine, oral formulations comprised thereof and their use as dopamine reuptake inhibitors)

IT 259729-90-3P 259729-91-4P 259729-92-5P
 259729-93-6P 259729-95-8P 260402-77-5P
 350701-71-2P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of racemic and optically pure desmethylsibutramine, didesmethylsibutramine, oral formulations comprised thereof and their use as dopamine reuptake inhibitors)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Boots Co Plc | 1982 | | | GB 2098602 A | HCAPLUS |
| Boots Co Plc | 1986 | | | EP 0191542 A | HCAPLUS |
| Emmelmann, G | 2000 | | | WO 0032182 A | |
| Fang, Q | 1999 | 10 | 4477 | TETRAHEDRON: ASYMMET | HCAPLUS |
| Sepracor Inc | 2000 | | | WO 0010551 A | HCAPLUS |

L64 ANSWER 17 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:356206 HCAPLUS

DN 134:348292

TI Methods and pharmaceutical compositions containing Apo B secretion/microsomal triglyceride transfer protein inhibitors and anti-obesity agents for the treatment of obesity

IN Morgan, Bradley Paul; Swick, Andrew Gordon
 PA Pfizer Products Inc., USA
 SO Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 1099441 | A2 | 20010516 | EP 2000-309753 | 20001103 <-- |
| | EP 1099441 | A3 | 20021204 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | BR 2000005318 | A | 20010807 | BR 2000-5318 | 20001109 <-- |
| | JP 2001139491 | A2 | 20010522 | JP 2000-344124 | 20001110 <-- |
| PRAI | US 1999-164780P | P | 19991110 | <-- | |
| OS | MARPAT 134:348292 | | | | |

AB The invention provides methods and pharmaceutical compns. containing Apo B secretion/MTP inhibitors and anti-obesity agents for the treatment of obesity an animal, preferably a mammal including a human subject, a companion animal, or livestock, using an apo B secretion/MTP inhibitor and an anti-obesity agent. The invention further provides to a kit comprising an amount of an apolipoprotein B secretion/microsomal triglyceride transfer protein inhibitor and a pharmaceutically acceptable carrier, vehicle or diluent in a first unit dosage form; an amount of an anti-obesity agent and a pharmaceutically acceptable carrier, vehicle or diluent in a second unit dosage form; and a container.

IT **106650-56-0, Sibutramine**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(apo B secretion/MTP inhibitors-containing pharmaceutical compns. and anti-obesity agents for the treatment of obesity)

L64 ANSWER 18 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:356205 HCAPLUS

DN 134:361376

TI Use of apo B secretion/MTP inhibitors for reducing intestinal fat absorption

IN Chandler, Charles Edward; Hickman, Mary Anne; Lundy, Kristin Marie; Morgan, Bradley Paul

PA Pfizer Products Inc., USA

SO Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

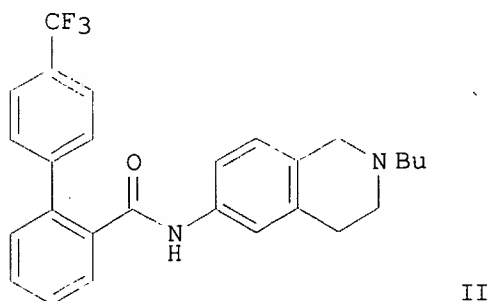
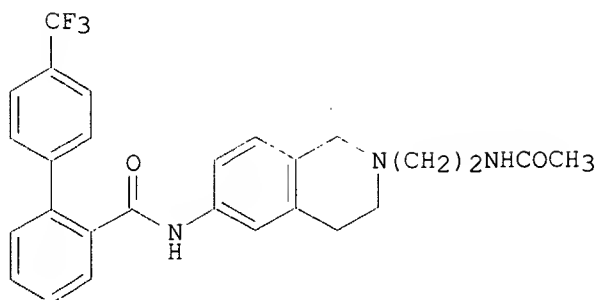
DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 1099439 | A2 | 20010516 | EP 2000-309721 | 20001103 <-- |
| | EP 1099439 | A3 | 20030326 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | ZA 2000006419 | A | 20020508 | ZA 2000-6419 | 20001108 <-- |
| | NZ 508059 | A | 20021126 | NZ 2000-508059 | 20001109 <-- |
| | JP 2001172180 | A2 | 20010626 | JP 2000-342892 | 20001110 <-- |
| PRAI | US 1999-164547P | P | 19991110 | <-- | |
| OS | MARPAT 134:361376 | | | | |

GI



AB Microsomal triglyceride transfer protein apolipoprotein B (apo B) secretion/microsomal triglyceride transfer protein (MTP) inhibitors are used for reducing intestinal fat absorption in animals and humans. Antiobesity agents may be included in the formulations. I and II reduced intestinal fat absorption in dogs by 49% and 26%, resp.

IT **106650-56-0, Sibutramine**

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(apo B secretion/MTP inhibitors for reducing intestinal fat absorption)

L64 ANSWER 19 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:356204 HCAPLUS

DN 134:361375

TI Use of apo B secretion/MTP inhibitors as antiobesity agents

IN Hickman, Mary Anne; Lundy, Kristin Marie; Morgan, Bradley Paul

PA Pfizer Products Inc., USA

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 1099438 | A2 | 20010516 | EP 2000-309705 | 20001103 <-- |
| | EP 1099438 | A3 | 20030319 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | ZA 2000006417 | A | 20020508 | ZA 2000-6417 | 20001108 <-- |
| | NZ 508061 | A | 20020426 | NZ 2000-508061 | 20001109 <-- |
| | JP 2001181209 | A2 | 20010703 | JP 2000-344128 | 20001110 <-- |
| PRAI | US 1999-164513P | P | 19991110 | <-- | |
| OS | MARPAT 134:361375 | | | | |
| GI | | | | | |

nigrostriatal area related to the extrapyramidal motor system, and thereby exhibit anti-obesity effects in the MSG-OB rat.

IT **106650-56-0, Sibutramine**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hypothalamic monoamines and effects of chronic **sibutramine** on body weight, food intake and motor activity in monosodium glutamate-treated obese female rats)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Baptista, T | 1997 | 30 | 43 | Pharmacopsychiatry | HCAPLUS |
| Bray, G | 1985 | 14 | 505 | Brain Res Bull | HCAPLUS |
| Bray, G | 1996 | 4 | 263 | Obesity Res | HCAPLUS |
| Bray, G | 1998 | 53 | 95 | Recent Prog Horm Res | HCAPLUS |
| Buckett, W | 1988 | 12 | 575 | Prog Neuro-Psychopharm | HCAPLUS |
| Connoley, I | 1999 | 126 | 1487 | Br J Pharmacol | HCAPLUS |
| Cox, C | 1967 | | 105 | Statistics in endoc | |
| Currie, P | 1997 | 8 | 3759 | Neuroreport | HCAPLUS |
| Day, C | 1998 | 22 | 619 | Int J Obes Relat Met | HCAPLUS |
| Dulloo, A | 1991 | 40 | 113 | Metabolism | HCAPLUS |
| Edwards, S | 1994 | 47 | 865 | Pharmacol Biochem Be | HCAPLUS |
| Egawa, M | 1991 | 260 | 328 | Am J Physiol | |
| Fletcher, P | 1989 | 32 | 907 | Pharmacol Biochem Be | HCAPLUS |
| Ganong, W | 1999 | | 221 | Review of Medical Ph | |
| Grignaschi, G | 1999 | 127 | 1190 | Br J Pharmacol | HCAPLUS |
| Gundlah, C | 1997 | 283 | 581 | J Pharmacol Exp Ther | HCAPLUS |
| Heal, D | 1991 | 103 | 251 | Psychopharmacology | HCAPLUS |
| Heal, D | 1992 | 107 | 303 | Psychopharmacology | HCAPLUS |
| Jackson, H | 1997 | 121 | 1613 | Br J Pharmacol | HCAPLUS |
| Jackson, H | 1997 | 121 | 1758 | Br J Pharmacol | HCAPLUS |
| Johnston, C | 1984 | 13 | 643 | Brain Res Bull | HCAPLUS |
| Karoum, F | 1984 | 100 | 137 | Eur J Pharmacol | HCAPLUS |
| Leibowitz, S | 1979 | 172 | 101 | Brain Res | MEDLINE |
| Leibowitz, S | 1988 | 21 | 905 | Brain Res Bull | HCAPLUS |
| Leibowitz, S | 1978 | 8 | 163 | Pharmacol Biochem Be | MEDLINE |
| Martin, K | 1995 | 51 | 565 | Pharmacol Biochem Be | HCAPLUS |
| Masuda, C | 1989 | 9 | 155 | Jpn J Psychopharmacol | |
| Mousseau, D | 1989 | 75 | 73 | J Neural Transm | MEDLINE |
| Mousseau, D | 1989 | 75 | 73 | J Neural Transm | MEDLINE |
| Nakagawa, T | 1994 | | 369 | A recent advance in | |
| Nakagawa, T | 1998 | 44 | 162 | Exp Anim | |
| Nakagawa, T | 1996 | 59 | 705 | Life Sci | HCAPLUS |
| Nakagawa, T | 1997 | 58 | 829 | Pharmacol Biochem Be | HCAPLUS |
| Nemeroff, C | 1977 | 101 | 614 | Endocrinology | |
| Nemeroff, C | 1977 | 2 | 179 | Psychoneuroendocrinol | HCAPLUS |
| Oida, K | 1984 | 8 | 385 | Int J Obes | HCAPLUS |
| Paez, X | 1993 | 46 | 933 | Pharmacol Biochem Be | HCAPLUS |
| Sakaguchi, T | 1989 | 492 | 271 | Brain Res | HCAPLUS |
| Stricker-Konggrad, A | 1995 | 19 | 398 | Int J Obes | |
| Stricker-Konggrad, A | 1995 | 19 | 399 | Int J Obes | |
| Weiser, M | 1997 | 37 | 453 | J Clin Pharmacol | HCAPLUS |
| Weiss, G | 1986 | 25 | 1223 | Pharmacol Biochem Be | HCAPLUS |
| Williams, T | 1984 | 311 | 1403 | N Engl J Med | HCAPLUS |
| Wortley, K | 1999 | 128 | 659 | Br J Pharmacol | HCAPLUS |
| Yoshida, T | 1990 | 36 | 123 | J Nutr Sci Vitaminol | HCAPLUS |
| Zhang, W | 1994 | 35 | 383 | Brain Res Bull | HCAPLUS |

L64 ANSWER 21 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688080 HCAPLUS

DN 133:232824

TI Treatment of cancers associated with weight gain with **sibutramine**
and N-demethyl derivatives thereof
IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
PA Knoll Pharmaceutical Company, USA
SO PCT Int. Appl., 15 pp.

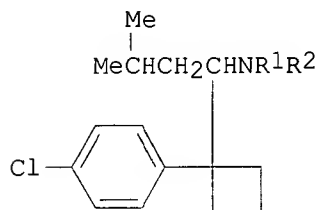
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056323 | A1 | 20000928 | WO 2000-US7361 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | NZ 514012 | A | 20010928 | NZ 2000-514012 | 20000317 <-- |
| | EP 1171106 | A1 | 20020116 | EP 2000-915015 | 20000317 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | BR 2000009161 | A | 20020122 | BR 2000-9161 | 20000317 <-- |
| | JP 2002539255 | T2 | 20021119 | JP 2000-606228 | 20000317 <-- |
| | NO 2001004478 | A | 20011029 | NO 2001-4478 | 20010914 <-- |
| | ZA 2001007687 | A | 20021218 | ZA 2001-7687 | 20010918 <-- |
| | BG 105998 | A | 20020628 | BG 2001-105998 | 20011010 <-- |
| PRAI | US 1999-125250P | P | 19990319 <-- | | |
| | WO 2000-US7361 | W | 20000317 <-- | | |
| OS | MARPAT 133:232824 | | | | |
| GI | | | | | |



I

AB Compds. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating cancers associated with obesity, including colon cancer, breast cancer, endometrial cancer, and gallbladder cancer.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
, **Sibutramine** hydrochloride 106650-56-0
106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
154752-44-0 168835-59-4 168835-59-4D,
enantiomers 229639-54-7 229639-55-8
229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of obesity-associated cancer)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Jeffery | 1991 | | | US 5068440 A | HCAPLUS |
| Vargas | 1995 | | | US 5459164 A | HCAPLUS |

L64 ANSWER 22 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688079 HCAPLUS

DN 133:232843

TI Treatment to lower platelet adhesiveness with **sibutramine** and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

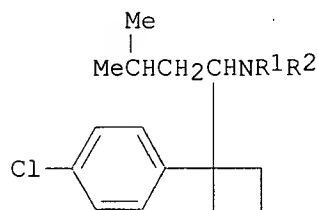
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056322 | A1 | 20000928 | WO 2000-US7255 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1178790 | A1 | 20020213 | EP 2000-918125 | 20000317 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 6380260 | B1 | 20020430 | US 2000-528343 | 20000317 <-- |
| | JP 2002539254 | T2 | 20021119 | JP 2000-606227 | 20000317 <-- |
| PRAI | US 1999-125335P | P | 19990319 <-- | | |
| | WO 2000-US7255 | W | 20000317 <-- | | |
| OS | MARPAT 133:232843 | | | | |
| GI | | | | | |



AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for decreasing platelet adhesiveness.

IT **84467-54-9 84467-54-9D**, enantiomers **84485-00-7**, **Sibutramine** hydrochloride **106650-56-0**, **106650-56-0D**, enantiomers **125494-59-9**, **Sibutramine** hydrochloride monohydrate **153341-22-1**, **154752-44-0 168835-59-4 168835-59-4D**, enantiomers **229639-54-7 229639-55-8 229639-56-9 229639-57-0**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for decreasing platelet

adhesiveness)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 23 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688078 HCAPLUS

DN 133:232866

TI Treatment of hyperactivity disorders with sibutramine and
N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 16 pp.

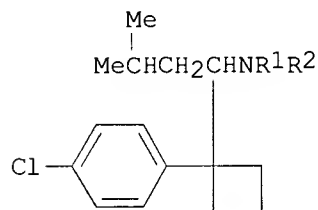
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056321 | A1 | 20000928 | WO 2000-US7254 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 6372798 | B1 | 20020416 | US 2000-528046 | 20000317 <-- |
| PRAI US 1999-125333P | P | 19990319 <-- | | |
| OS MARPAT 133:232866 | | | | |
| GI | | | | |



AB Comps. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating hyperactivity disorders, e.g. attention deficit hyperactivity disorder and hyperkinetic disorder. Use of these comps. for treating eating disorders is also disclosed.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
, Sibutramine hydrochloride 106650-56-0
106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
154752-44-0 168835-59-4 168835-59-4D,
enantiomers 229639-54-7 229639-55-8
229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sibutramine and N-demethyl derivs. for treatment of hyperactivity disorders)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 24 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688077 HCAPLUS

DN 133:232865

TI Treatment of menstrual function and infertility with **sibutramine**
and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

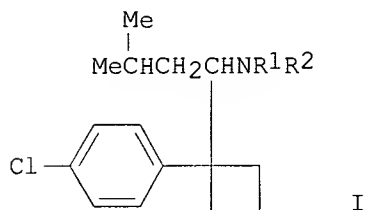
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056320 | A1 | 20000928 | WO 2000-US7242 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 6372797 | B1 | 20020416 | US 2000-527811 | 20000317 <-- |
| PRAI US 1999-125339P | P | 19990319 <-- | | |
| OS MARPAT 133:232865 | | | | |
| GI | | | | |

AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof
(e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-
HCl, optionally in the form of its monohydrate) are used for treating
menstrual function and infertility.IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
, **Sibutramine** hydrochloride 106650-56-0
106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
154752-44-0 168835-59-4 168835-59-4D,
enantiomers 229639-54-7 229639-55-8
229639-56-9 229639-57-0RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)(sibutramine and N-demethyl derivs. for treatment of
menstrual function and infertility)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|

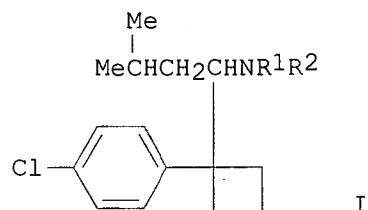
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=====+=====+=====+=====+=====+=====+=====
Ukai          |1990 |      |      |US 4939175 A      |HCAPLUS
Vargas        |1995 |      |      |US 5459164 A      |HCAPLUS

```

L64 ANSWER 25 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:688076 HCAPLUS
 DN 133:232842
 TI Treatment of orthostatic hypotension with **sibutramine** and
 N-demethyl derivatives thereof
 IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
 PA Knoll Pharmaceutical Company, USA
 SO PCT Int. Appl., 14 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | WO 2000056319 | A1 | 20000928 | WO 2000-US7230 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6365632 | B1 | 20020402 | US 2000-527963 | 20000317 <-- |
| PRAI | US 1999-125606P | P | 19990319 | <-- | |
| OS | MARPAT 133:232842 | | | | |
| GI | | | | | |



AB Compds. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof
 (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-
 HCl, optionally in the form of its monohydrate) are used for treating
 orthostatic hypotension.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)

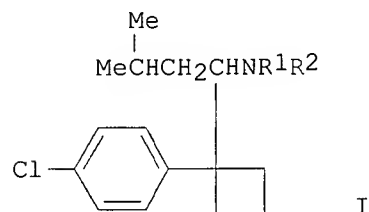
(sibutramine and N-demethyl derivs. for treatment of
 orthostatic hypotension)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 26 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:688075 HCAPLUS
 DN 133:232864
 TI Treatment of neuropathic pain or fibromyalgia with **sibutramine**
 and N-demethyl derivatives thereof
 IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
 PA Knoll Pharmaceutical Company, USA
 SO PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056318 | A1 | 20000928 | WO 2000-US7204 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| PRAI US 1999-125113P | P | 19990319 <-- | | |
| OS MARPAT 133:232864 | | | | |
| GI | | | | |



AB Compds. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating fibromyalgia or neuropathic pain, e.g. pain associated with diabetes mellitus, shingles, nerve injury and varied peripheral neuropathies.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of neuropathic pain and fibromyalgia)

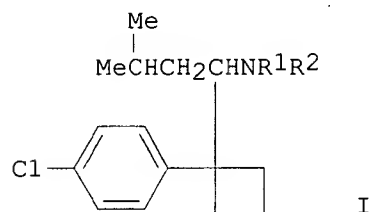
RETABLe

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 27 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:688074 HCAPLUS

DN 133:232863
 TI **Sibutramine** and N-demethyl derivatives thereof for aiding weight loss after pregnancy
 IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
 PA Knoll Pharmaceutical Company, USA
 SO PCT Int. Appl., 15 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|---|------|----------|-----------------|----------|-----|
| PI | WO 2000056317 | A1 | 20000928 | WO 2000-US7202 | 20000317 | <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA | | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | | |
| | NZ 514015 | A | 20010928 | NZ 2000-514015 | 20000317 | <-- |
| | EP 1162966 | A1 | 20011219 | EP 2000-921401 | 20000317 | <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | | |
| | BR 2000009078 | A | 20011226 | BR 2000-9078 | 20000317 | <-- |
| | JP 2002539253 | T2 | 20021119 | JP 2000-606222 | 20000317 | <-- |
| | NO 2001004474 | A | 20011114 | NO 2001-4474 | 20010914 | <-- |
| | BG 105995 | A | 20020628 | BG 2001-105995 | 20011010 | <-- |
| PRAI | US 1999-125149P | P | 19990319 | | | <-- |
| | WO 2000-US7202 | W | 20000317 | | | <-- |
| OS | MARPAT 133:232863 | | | | | |
| GI | | | | | | |



AB Compds. I (R¹, R² = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for aiding weight loss after pregnancy.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7, Sibutramine hydrochloride 106650-56-0, 106650-56-0D, enantiomers 125494-59-9, Sibutramine hydrochloride monohydrate 153341-22-1, 154752-44-0 168835-59-4 168835-59-4D, enantiomers 229639-54-7 229639-55-8, 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for aiding weight loss after pregnancy)

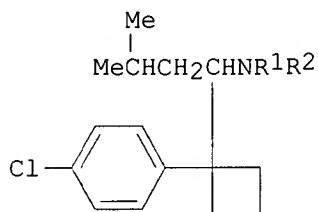
RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| ===== | ===== | ===== | ===== | ===== | ===== |

Scheinbaum |1995 | | |US 5436272 A |HCAPLUS

L64 ANSWER 28 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:688073 HCAPLUS
 DN 133:232880
 TI Treatment of gallstones with **sibutramine** and N-demethyl
 derivatives thereof
 IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
 PA Knoll Pharmaceutical Company, USA
 SO PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056316 | A1 | 20000928 | WO 2000-US7199 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1165060 | A1 | 20020102 | EP 2000-919462 | 20000317 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2002539252 | T2 | 20021119 | JP 2000-606221 | 20000317 <-- |
| PRAI | US 1999-125609P | P | 19990319 <-- | | |
| | WO 2000-US7199 | W | 20000317 <-- | | |
| OS | MARPAT 133:232880 | | | | |
| GI | | | | | |



AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating gallstones, particularly gallstones associated with gall bladder disease related to obesity.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of gallstones)

RETABE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|

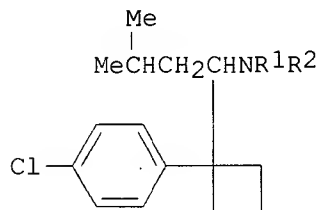
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Boots Pharmaceuticals I|1995 |      |      |WO 9520949 A1      |HCAPLUS
Ukai                  |1990 |      |      |US 4939175        |HCAPLUS
=====+=====+=====+=====+=====+=====+=====+=====

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L64 ANSWER 29 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:688072 HCAPLUS
 DN 133:232862
 TI Treatment of pain with **sibutramine** and N-demethyl derivatives thereof
 IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.
 PA Knoll Pharmaceutical Company, USA
 SO PCT Int. Appl., 15 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056315 | A1 | 20000928 | WO 2000-US7178 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6376553 | B1 | 20020423 | US 2000-528036 | 20000317 <-- |
| PRAI | US 1999-125120P | P | 19990319 <-- | | |
| OS | MARPAT 133:232862 | | | | |
| GI | | | | | |



AB Compds. I (R¹, R² = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating pain, e.g. low back pain.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

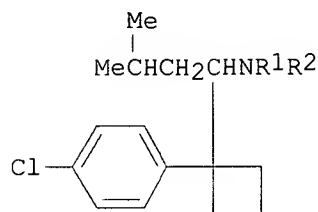
(**sibutramine** and N-demethyl derivs. for treatment of pain)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Jeffery | 1991 | | | US 5068440 A | HCAPLUS |
| Vargas | 1995 | | | US 5459164 A | HCAPLUS |

L64 ANSWER 30 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:688071 HCAPLUS
 DN 133:232861
 TI Treatment of sleep disorders with **sibutramine** and N-demethyl
 derivatives thereof
 IN Cheetham, Sharon Crawford; Heal, David John; Mendel, Carl M.; Seaton,
 Timothy B.; Weinstein, Steve P.; Safer, Anton
 PA Knoll Pharmaceutical Company, USA
 SO PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|---|------|----------|-----------------|----------|-----|
| PI | WO 2000056314 | A1 | 20000928 | WO 2000-US7177 | 20000317 | <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | | |
| | NZ 514014 | A | 20010928 | NZ 2000-514014 | 20000317 | <-- |
| | EP 1169029 | A1 | 20020109 | EP 2000-918094 | 20000317 | <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | | |
| | BR 2000009080 | A | 20020213 | BR 2000-9080 | 20000317 | <-- |
| | US 6365631 | B1 | 20020402 | US 2000-527814 | 20000317 | <-- |
| | JP 2003521469 | T2 | 20030715 | JP 2000-606219 | 20000317 | <-- |
| | NO 2001004475 | A | 20011114 | NO 2001-4475 | 20010914 | <-- |
| | BG 106001 | A | 20020628 | BG 2001-106001 | 20011010 | <-- |
| PRAI | US 1999-125185P | P | 19990319 | <-- | | |
| | WO 2000-US7177 | W | 20000317 | <-- | | |
| OS | MARPAT 133:232861 | | | | | |
| GI | | | | | | |



AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating sleeping disorders, including sleep apnea and snoring.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of sleep disorders)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Jeffery | 1991 | | | US 5068440 A | HCAPLUS |
| Vargas | 1995 | | | US 5459164 A | HCAPLUS |

L64 ANSWER 31 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688070 HCAPLUS

DN 133:232860

TI **Sibutramine** and N-demethyl derivatives thereof for controlling weight gain associated with therapeutic drugs

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 17 pp.

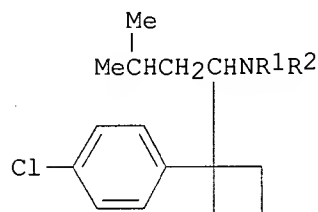
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056313 | A1 | 20000928 | WO 2000-US7130 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| NZ 514009 | A | 20010928 | NZ 2000-514009 | 20000317 <-- |
| EP 1162965 | A1 | 20011219 | EP 2000-916480 | 20000317 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| BR 2000009159 | A | 20011226 | BR 2000-9159 | 20000317 <-- |
| US 6376552 | B1 | 20020423 | US 2000-527962 | 20000317 <-- |
| JP 2002539251 | T2 | 20021119 | JP 2000-606218 | 20000317 <-- |
| CZ 291864 | B6 | 20030618 | CZ 2001-3283 | 20000317 <-- |
| NO 2001004480 | A | 20011102 | NO 2001-4480 | 20010914 <-- |
| ZA 2001007692 | A | 20021218 | ZA 2001-7692 | 20010918 <-- |
| BG 105997 | A | 20020628 | BG 2001-105997 | 20011010 <-- |
| PRAI US 1999-125340P | P | 19990319 <-- | | |
| WO 2000-US7130 | W | 20000317 <-- | | |
| OS MARPAT 133:232860 | | | | |
| GI | | | | |



AB Compds. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating weight gain associated with drug therapy, including the use of tricyclic antidepressants, lithium, sulfonyleureas, β -adrenergic blockers, certain steroid contraceptives, corticosteroids, insulin, cyproheptadine, sodium valproate, neuroleptics, phenothiazines, or piztifin.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7

, **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for controlling weight gain associated with drug therapy)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Scheinbaum | 1995 | | | US 5436272 A | HCAPLUS |
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 32 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688069 HCAPLUS

DN 133:232841

TI Treatment of pulmonary hypertension with **sibutramine** and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

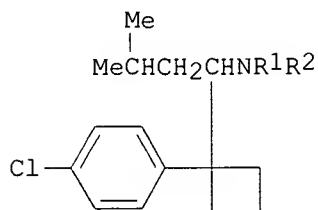
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056312 | A1 | 20000928 | WO 2000-US7124 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1162964 | A1 | 20011219 | EP 2000-916474 | 20000317 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 6403650 | B1 | 20020611 | US 2000-527815 | 20000317 <-- |
| | JP 2002539250 | T2 | 20021119 | JP 2000-606217 | 20000317 <-- |
| PRAI | US 1999-125604P | P | 19990319 <-- | | |
| | WO 2000-US7124 | W | 20000317 <-- | | |
| OS | MARPAT 133:232841 | | | | |
| GI | | | | | |



AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating

pulmonary hypertension, particularly in patients who take certain anorectic medications.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of pulmonary hypertension)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 33 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688068 HCAPLUS

DN 133:232850

TI Treatment of metabolic disorders with **sibutramine** and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

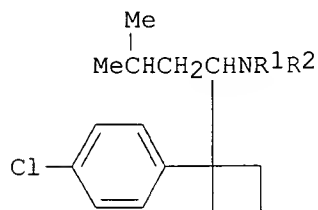
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056311 | A1 | 20000928 | WO 2000-US7123 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 6441046 | B1 | 20020827 | US 2000-528050 | 20000317 <-- |
| PRAI US 1999-125117P | P | 19990319 <-- | | |
| OS MARPAT 133:232850 | | | | |
| GI | | | | |



I

AB Compds. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating metabolic disorders, e.g. increased non-exercise activity thermogenesis or increased metabolic rate.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7

, **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of metabolic disorders)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Scheinbaum | 1995 | | | US 5436272 A | HCAPLUS |
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |
| Vargas | 1995 | | | US 5459164 A | HCAPLUS |

L64 ANSWER 34 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688067 HCAPLUS

DN 133:232859

TI Treatment of chronic fatigue syndrome with **sibutramine** and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 14 pp.

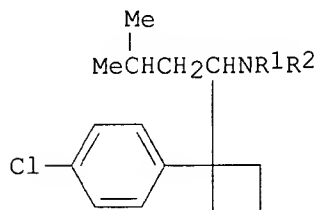
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056310 | A1 | 20000928 | WO 2000-US7122 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6376551 | B1 | 20020423 | US 2000-527812 | 20000317 <-- |
| PRAI | US 1999-125114P | P | 19990319 <-- | | |
| OS | MARPAT 133:232859 | | | | |
| GI | | | | | |



AB Compds. I (R₁, R₂ = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating chronic fatigue syndrome.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,

Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of chronic fatigue syndrome)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 35 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688066 HCAPLUS

DN 133:232879

TI Treatment of sexual dysfunction with **sibutramine** and N-demethyl derivatives thereof

IN Cheetham, Sharon Crawford; Heal, David John

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

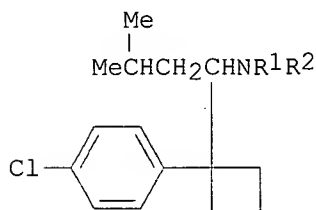
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056309 | A1 | 20000928 | WO 2000-US7114 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 6376554 | B1 | 20020423 | US 2000-528149 | 20000317 <-- |
| PRAI US 1999-125151P | P | 19990319 <-- | | |
| OS MARPAT 133:232879 | | | | |
| GI | | | | |



AB Compds. I (R¹, R² = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating sexual dysfunction.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , **Sibutramine** hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,

enantiomers 229639-54-7 229639-55-8
229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of sexual dysfunction)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |
| Vargas | 1995 | | | US 5459164 A | HCAPLUS |

L64 ANSWER 36 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688065 HCAPLUS

DN 133:232840

TI Treatment and prevention of cardiovascular disease with
sibutramine and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

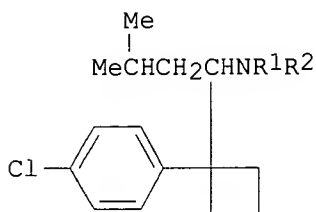
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056308 | A1 | 20000928 | WO 2000-US7113 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 6433020 | B1 | 20020813 | US 2000-527959 | 20000317 <-- |
| PRAI US 1999-125115P | P | 19990319 <-- | | |
| OS MARPAT 133:232840 | | | | |
| GI | | | | |



AB Compds. I (R¹, R² = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating cardiovascular disease, e.g. dyslipidemia or carotid intimal medial thickening.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
, **Sibutramine** hydrochloride 106650-56-0
106650-56-0D, enantiomers 125494-59-9,
Sibutramine hydrochloride monohydrate 153341-22-1
154752-44-0 168835-59-4 168835-59-4D,
enantiomers 229639-54-7 229639-55-8
229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of cardiovascular disease)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 37 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688064 HCAPLUS

DN 133:232844

TI Treatment of hiatal hernia and reflux esophagitis with **sibutramine** and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

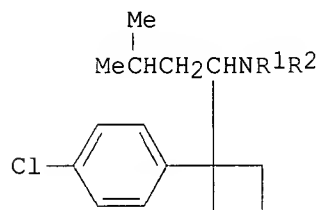
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| WO 2000056307 | A1 | 20000928 | WO 2000-US7112 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| NZ 514013 | A | 20010928 | NZ 2000-514013 | 20000317 <-- |
| EP 1169028 | A1 | 20020109 | EP 2000-918070 | 20000317 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| BR 2000009160 | A | 20020129 | BR 2000-9160 | 20000317 <-- |
| JP 2002539249 | T2 | 20021119 | JP 2000-606212 | 20000317 <-- |
| NO 2001004476 | A | 20011029 | NO 2001-4476 | 20010914 <-- |
| BG 106000 | A | 20020628 | BG 2001-106000 | 20011010 <-- |
| PRAI US 1999-125116P | P | 19990319 | <-- | |
| WO 2000-US7112 | W | 20000317 | <-- | |
| OS MARPAT 133:232844 | | | | |
| GI | | | | |



AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating hiatal hernias and reflux esophagitis.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , Sibutramine hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,

Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**sibutramine** and N-demethyl derivs. for treatment of hiatal hernia and reflux esophagitis)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ukai | 1990 | | | US 4939175 A | HCAPLUS |

L64 ANSWER 38 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688063 HCAPLUS

DN 133:247281

TI Treatment of osteoarthritis or gout with **sibutramine** and N-demethyl derivatives thereof

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

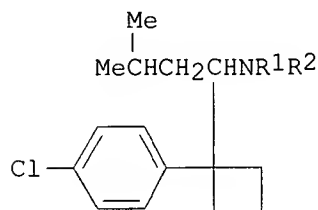
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056306 | A1 | 20000928 | WO 2000-US7072 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| NZ 514016 | A | 20010928 | NZ 2000-514016 | 20000317 <-- |
| EP 1169027 | A1 | 20020109 | EP 2000-918058 | 20000317 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002539248 | T2 | 20021119 | JP 2000-606211 | 20000317 <-- |
| BR 2000009081 | A | 20030305 | BR 2000-9081 | 20000317 <-- |
| NO 2001004477 | A | 20011101 | NO 2001-4477 | 20010914 <-- |
| BG 105999 | A | 20020628 | BG 2001-105999 | 20011010 <-- |
| PRAI US 1999-125300P | P | 19990319 <-- | | |
| WO 2000-US7072 | W | 20000317 <-- | | |
| OS MARPAT 133:247281 | | | | |
| GI | | | | |



AB Compds. I (R1, R2 = H, Me) or a pharmaceutically acceptable salt thereof (e.g. N,N,-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine-HCl, optionally in the form of its monohydrate) are used for treating

osteoarthritis or gout.

IT 84467-54-9 84467-54-9D, enantiomers 84485-00-7
 , Sibutramine hydrochloride 106650-56-0
 106650-56-0D, enantiomers 125494-59-9,
 Sibutramine hydrochloride monohydrate 153341-22-1
 154752-44-0 168835-59-4 168835-59-4D,
 enantiomers 229639-54-7 229639-55-8
 229639-56-9 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sibutramine and N-demethyl derivs. for treatment of osteoarthritis and gout)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Jeffery | 1991 | | | US 5068440 A | HCAPLUS |
| Vargas | 1995 | | | US 5459164 A | HCAPLUS |

L64 ANSWER 39 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688012 HCAPLUS

DN 133:247297

TI Method of treating obsessive-compulsive disorder with sibutramine compounds

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA English

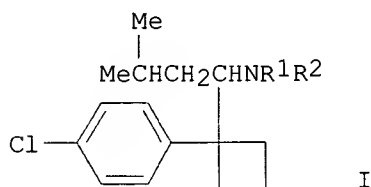
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| WO 2000056151 | A1 | 20000928 | WO 2000-US7227 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |

PRAI US 1999-125183P P 19990319 <--

OS MARPAT 133:247297

GI



AB Compds. I (R¹ and R² = H or Me) (for example, N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutyl amine hydrochloride optionally in the form of its monohydrate) or a pharmaceutically acceptable salt thereof, including individual enantiomers and racemates thereof, are used for treating obsessive-compulsive disorder. Sibutramine I (R¹ = R² = Me) and its metabolites I (R¹ = H, R² = Me) and I (R¹ = R² = H) inhibited the reuptake of monoamines in rat brain tissue.

IT 84467-54-9 106650-56-0, Sibutramine

168835-59-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(obsessive-compulsive disorder treatment with **sibutramine** compds.)

IT 84485-00-7 125494-59-9 153341-22-1
154752-44-0 229639-54-7 229639-55-8
229639-56-9 229639-57-0

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(obsessive-compulsive disorder treatment with **sibutramine** compds.)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Gundlah | 1997 | 283 | 581 | J Pharmacol Exp Ther | HCAPLUS |
| Jeffery | 1985 | | | US 4522828 A | HCAPLUS |
| Nakajima | 1995 | 17 | 265 | Shinkei Seishin Yaku | HCAPLUS |

L64 ANSWER 40 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688011 HCAPLUS

DN 133:247296

TI Method of treating premenstrual syndrome with **sibutramine** compounds

IN Mendel, Carl M.; Seaton, Timothy B.; Weinstein, Steve P.

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

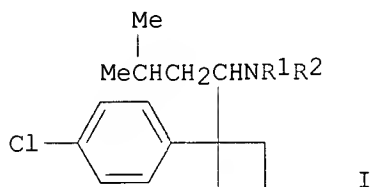
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|-----------------|--------------|
| WO 2000056150 | A1 | 20000928 | WO 2000-US7198 | 20000317 <-- |
| W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| PRAI US 1999-125334P | P | 19990319 <-- | | |
| OS MARPAT 133:247296 | | | | |
| GI | | | | |



AB Compds. I (R1 and R2 = H or Me) (for example, N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutyl amine hydrochloride optionally in the form of its monohydrate), or a pharmaceutically acceptable salt thereof, are used for treating premenstrual syndrome. **Sibutramine** I (R1 = R2 = Me) and its metabolites I (R1 = H, R2 = Me) and I (R1 = R2 = H) inhibited the reuptake of monoamines in rat brain tissue.

IT 84467-54-9 106650-56-0, **Sibutramine**
168835-59-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(treating premenstrual syndrome with **sibutramine** compds.)

IT 84485-00-7 125494-59-9 153341-22-1
154752-44-0 229639-54-7 229639-55-8
229639-56-9 229639-57-0

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treating premenstrual syndrome with **sibutramine** compds.)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|-----------------|----------------|---------------|--------------------------|--------------------|
| Gundlah | 1997 | 283 | 581 | J Pharmacol Exp Ther | HCAPLUS |
| Jeffery | 1985 | | | US 4522828 A | HCAPLUS |
| Mortola | 1995 | | | Curr Opin Endocrinol | HCAPLUS |

L64 ANSWER 41 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:688010 HCAPLUS

DN 133:247295

TI Method of treating anxiety disorders with **sibutramine** compounds

IN Cheetham, Sharon Crawford; Heal, David John; Luscombe, Graham Paul

PA Knoll Pharmaceutical Company, USA

SO PCT Int. Appl., 15 pp.

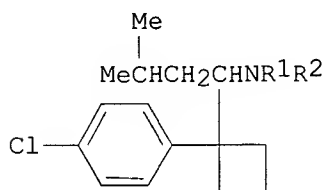
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 2000056149 | A1 | 20000928 | WO 2000-US7125 | 20000317 <-- |
| | W: AT, AU, BG, BR, CA, CN, CZ, DE, DK, ES, FI, GB, HR, HU, ID, IL, IN, IS, JP, KR, LT, LU, LV, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, TR, UA, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6355685 | B1 | 20020312 | US 2000-528063 | 20000317 <-- |
| PRAI | US 1999-125161P | P | 19990319 <-- | | |
| OS | MARPAT 133:247295 | | | | |
| GI | | | | | |



I

AB Compds. I (R₁ and R₂ = H or Me) (for example, N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutyl amine hydrochloride optionally in the form of its monohydrate) or a pharmaceutically acceptable salt thereof, including individual enantiomers and racemates thereof, are used for treating anxiety disorders. **Sibutramine** I (R₁ = R₂ = Me) and its metabolites I (R₁ = H, R₂ = Me) and I (R₁ = R₂ = H) inhibited the reuptake of monoamines in rat brain tissue.

IT 84467-54-9 106650-56-0, Sibutramine
125494-59-9 168835-59-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)

(treating anxiety disorders with **sibutramine** compds.)

IT 84485-00-7 153341-22-1 154752-44-0
 229639-54-7 229639-55-8 229639-56-9
 229639-57-0

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(treating anxiety disorders with **sibutramine** compds.)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Gundlah | 1997 | 283 | 581 | J Pharmacol Exp Ther | HCAPLUS |
| Jeffery | 1985 | | | US 4522828 A | HCAPLUS |
| Koshino | 1995 | 17 | 257 | Shinkei Seishin Yaku | HCAPLUS |

L64 ANSWER 42 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:378080 HCAPLUS

DN 133:202953

TI Enantioselective behavioral effects of **sibutramine** metabolites

AU Glick, S. D.; Haskew, R. E.; Maisonneuve, I. M.; Carlson, J. N.;
 Jerussi, T. P.

CS Department of Pharmacology and Neuroscience (MC-136), Albany Medical
 College, Albany, 12208, USA

SO European Journal of Pharmacology (2000), 397(1), 93-102

CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier Science B.V.

DT Journal

LA English

AB The anti-obesity agent, racemic (RS)-**sibutramine**, has two active metabolites, desmethylsibutramine and didesmethylsibutramine. To the extent that **sibutramine** itself mediates some of its side effects, desmethylsibutramine and/or didesmethylsibutramine might be safer and just as therapeutically effective. Because both desmethylsibutramine and didesmethylsibutramine are also optically active, the present study assessed the anorexic effects (2.5-10 mg/kg, i.p., for all drugs), in rats, of the R(+)-and S(-)-enantiomers of both metabolites and compared them to the effects of racemic **sibutramine**. Locomotor activity (2.5-10 mg/kg, i.p., for all drugs), a dopamine dependent behavior, was also measured in view of some uncertainty regarding dopaminergic effects of **sibutramine**. In view of **sibutramine**'s antidepressant profile in animal models, the same drugs were also tested in the Porsolt swim test (0.1-2.5 mg/kg, i.p., for all drugs). Lastly, the IC50s of all drugs to inhibit uptake in vitro of norepinephrine, serotonin and dopamine were determined. Both (R)-enantiomers had significantly greater anorexic effects than those of their resp. (S)-enantiomers as well as of **sibutramine**. All of the agents increased locomotor activity and reduced immobilized time ("behavioral despair") in the swim test; again, the (R)-enantiomers were more potent than the (S)-enantiomers and **sibutramine**. However, the anorexic and locomotor effects could be dissociated from each other as well as from effects in the swim test. Both (R)-desmethylsibutramine and (R)-didesmethylsibutramine as well as **sibutramine** decreased food intake at a time (24-42 h post-treatment) when locomotor activity was unaffected. All of the drugs appeared to be more potent in the swim test than in the other tests and all of the drugs were more potent at inhibiting uptake of norepinephrine and dopamine than of serotonin. The results suggest that these enantioselective metabolites of **sibutramine** could be safe and effective treatments for obesity as well as possibly for depression.

IT 229639-54-7 229639-55-8 229639-56-9
 229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)

(enantioselective behavioral effects of **sibutramine** metabolites)

IT 106650-56-0, **Sibutramine**

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(enantioselective behavioral effects of **sibutramine** metabolites)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Buckett, W | 1988 | 12 | 575 | Prog Neuro-Psychoph | HCAPLUS |
| Cheetham, S | 1993 | 32 | 737 | Neuropharmacology | HCAPLUS |
| Heal, D | 1998 | 22 | S18 | Int J Obes | |
| Heal, D | 1992 | 107 | 303 | Psychopharmacology | HCAPLUS |
| Jackson, H | 1997 | 121 | 1613 | Br J Pharmacol | HCAPLUS |
| Jackson, H | 1997 | 121 | 1758 | Br J Pharmacol | HCAPLUS |
| Janowsky, A | 1986 | 46 | 1272 | J Neurochem | HCAPLUS |
| Joy, R | 1967 | 23 | 589 | J Appl Physiol | MEDLINE |
| Luscombe, G | 1989 | 28 | 129 | Neuropharmacology | HCAPLUS |
| Luscombe, G | 1990 | 100 | 345 | Psychopharmacology | HCAPLUS |
| Martin, K | 1995 | 114 | | Br J Pharmacol | |
| Perovic, S | 1995 | 45 | 1145 | Arzneim Forsh Drug R | HCAPLUS |
| Porsolt, R | 1977 | 266 | 730 | Nature | HCAPLUS |
| Stock, M | 1997 | 21 | S25 | Int J Obes | |
| Wise, R | 1987 | 94 | 469 | Psychol Rev | MEDLINE |

L64 ANSWER 43 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:332323 HCAPLUS

TI First preparation of optically pure **sibutramine**: Its major metabolite and determination of absolute configuration by single X-ray analysis.

AU Fang, Q. Kevin; **Senanayake, Chris H.**; Han, Zhengxu; Morency, Cynthia; Grover, Paul; Butler, Hal; Wald, Stephen A.; Cameron, T. Stanley

CS Chemical Process Research and Development, **Sepracor** Inc, Marlborough, MA, 01752, USA

SO Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March 26-30, 2000 (2000), ORGN-197 Publisher: American Chemical Society, Washington, D. C.

CODEN: 69CLAC

DT Conference; Meeting Abstract

LA English

AB Racemic **sibutramine** was resolved with dibenzoyl L-tartaric acid, and the absolute stereochem. of **sibutramine** was determined by single X-ray crystallog. of its dibenzoyl D-tartrate. Major metabolite (Des-methylsibutramine) was obtained by demethylation of **sibutramine** with DEAD. Enantiomeric purity of **sibutramine** was determined by HPLC with Ultron ES-OVM column.

L64 ANSWER 44 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:144721 HCAPLUS

DN 132:189679

TI Methods of using and compositions comprising dopamine reuptake inhibitors

IN **Jerussi, Thomas P.**; **Senanayake, Chrisantha H.**; Fang, Qun K.

PA **Sepracor** Inc., USA

SO PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|-------|-----------------|-------|
| ----- | ---- | ----- | ----- | ----- |

PI WO 2000010551 A2 20000302 WO 1999-US19167 19990823 <--
 WO 2000010551 A3 20000921
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
 DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
 JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
 MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
 TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 US 6331571 B1 20011218 US 1999-372158 19990811 <--
 CA 2341441 AA 20000302 CA 1999-2341441 19990823 <--
 AU 9957817 A1 20000314 AU 1999-57817 19990823 <--
 EP 1107746 A2 20010620 EP 1999-945137 19990823 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 BR 9913325 A 20011002 BR 1999-13325 19990823 <--
 JP 2002523366 T2 20020730 JP 2000-565873 19990823 <--
 ZA 2001001498 A 20020222 ZA 2001-1498 20010222 <--
 NO 2001000943 A 20010423 NO 2001-943 20010223 <--
 US 2002188029 A1 20021212 US 2001-806 20011204 <--
 US 6538034 B2 20030325
 US 2003195261 A1 20031016 US 2003-395298 20030325 <--
 PRAI US 1998-97665P P 19980824 <--
 US 1998-99306P P 19980902 <--
 US 1999-372158 A 19990811 <--
 WO 1999-US19167 W 19990823 <--
 US 2001-806 A3 20011204
 AB Methods are disclosed for the treatment and prevention of disorders and
 conditions including, but are not limited to, erectile dysfunction,
 affective disorders, weight gain, cerebral functional disorders, pain,
 obsessive-compulsive disorder, substance abuse, chronic disorders,
 anxiety, eating disorders, migraines, and incontinence. The methods
 comprise the administration of a dopamine reuptake inhibitor and
 optionally an addnl. pharmacol. active compound Pharmaceutical compns. and
 dosage forms are also disclosed that comprise a dopamine reuptake
 inhibitor and optionally an addnl. pharmacol. active compound Preferred
 dopamine reuptake inhibitors are racemic or optically pure
sibutramine metabolites and pharmaceutically acceptable salts,
 solvates, and clathrates thereof. Preferred addnl. pharmacol. active
 compds. include drugs that affect the central nervous system, such as
 5-HT3, antagonists.
 IT **154752-44-0P, (+)-Sibutramine**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); PUR (Purification or recovery); BIOL (Biological
 study); PREP (Preparation)
 (dopamine reuptake inhibitors, pharmaceutical compns., and therapeutic
 use, including with other agents)
 IT **153341-22-1P, (-)-Sibutramine**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); PUR (Purification or recovery); RCT (Reactant); BIOL
 (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (dopamine reuptake inhibitors, pharmaceutical compns., and therapeutic
 use, including with other agents)
 IT **84467-54-9P**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)
 (dopamine reuptake inhibitors, pharmaceutical compns., and therapeutic
 use, including with other agents)
 IT **229639-55-8**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(dopamine reuptake inhibitors, pharmaceutical comps., and therapeutic use, including with other agents)

IT 106650-56-0D, **Sibutramine**, metabolites
168835-59-4 229639-54-7 229639-56-9
229639-57-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(dopamine reuptake inhibitors, pharmaceutical comps., and therapeutic use, including with other agents)

IT 84485-00-7P, **Sibutramine** hydrochloride
153341-23-2P, (-)-**Sibutramine** hydrochloride
259729-88-9P 259729-93-6P 259729-95-8P
259731-39-0P 259731-40-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(dopamine reuptake inhibitors, pharmaceutical comps., and therapeutic use, including with other agents)

IT 106650-56-0P, **Sibutramine**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction; dopamine reuptake inhibitors, pharmaceutical comps., and therapeutic use, including with other agents)

IT 84467-94-7P 259729-87-8P, preparation
259729-90-3P 259729-91-4P 259729-92-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction; dopamine reuptake inhibitors, pharmaceutical comps., and therapeutic use, including with other agents)

L64 ANSWER 45 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:38891 HCAPLUS

DN 132:207624

TI First preparation of enantiomerically pure **sibutramine** and its major metabolite, and determination of their absolute configuration by single crystal X-ray analysis

AU Fang, Qun K.; **Senanayake, Chris H.**; Han, Zhengxu; Morency, Cynthia; Grover, Paul; Malone, Robert E.; Bulter, Hal; Wald, Stephen A.; Cameron, T. Stanley

CS Chemical Process Research and Development **Sepracor Inc.**,
Marlborough, MA, 01752, USA

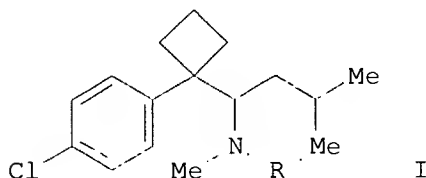
SO Tetrahedron: Asymmetry (1999), 10(23), 4477-4480
CODEN: TASYE3; ISSN: 0957-4166

PB Elsevier Science Ltd.

DT Journal

LA English

GI



AB Racemic **sibutramine** (I, R = Me) was resolved with

dibenzoyl-D-tartaric acid, and the absolute stereochem. of **sibutramine** was determined by single crystal X-ray crystallog. of its dibenzoyl D-tartrate. The major active metabolite [desmethylsibutramine, I (R = H)] was obtained by demethylation of **sibutramine** with DEAD. The enantiomeric purity of **sibutramine** was determined by HPLC on an Ultron ES-OVM column.

IT 154752-44-0P

RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and demethylation of)

IT 259731-40-3P

RL: PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation and x-ray anal. of)

IT 260402-77-5P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and x-ray anal. of)

IT 153341-23-2P 154752-45-1P

RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 106650-56-0, Sibutramine

RL: RCT (Reactant); RACT (Reactant or reagent)
(resolution with dibenzoyl-D-tartaric acid)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Buckett, W | 1988 | 12 | 1575 | Prog Neuropsychophar | HCAPLUS |
| Butler, D | 1971 | 36 | 1308 | J Org Chem | HCAPLUS |
| Jeffery, J | 1996 | | 2583 | J Chem Soc, Perkin T | HCAPLUS |
| Smisman, E | 1973 | 38 | 1652 | J Org Chem | HCAPLUS |
| Young, J | | | | WO 9400114 | HCAPLUS |
| Young, J | | | | WO 940047 | |

L64 ANSWER 46 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:749505 HCAPLUS

DN 128:70669

TI In vivo criteria to differentiate monoamine reuptake inhibitors from releasing agents: **sibutramine** is a reuptake inhibitor

AU Gundlah, C.; Martin, K. F.; Heal, D. J.; Auerbach, S. B.

CS Department of Biological Sciences, Rutgers University, Piscataway, NJ, 08855, USA

SO Journal of Pharmacology and Experimental Therapeutics (1997), 283(2), 581-591

CODEN: JPETAB; ISSN: 0022-3565

PB Williams & Wilkins

DT Journal

LA English

AB Because monoamine reuptake inhibitors and releasing agents both increase extracellular neurotransmitter levels, establishing in vivo exptl. criteria for their classification has been difficult. Using microdialysis in the hypothalamus of unanesthetized rats, we provide evidence that serotonin- (5-HT) selective and nonselective reuptake inhibitors can be distinguished from the 5-HT-releasing agent fenfluramine by four criteria: (1) Systemic fenfluramine produces a much greater increase in 5-HT than the reuptake inhibitors. (2) The 5-HT somatodendritic autoreceptor agonist, (±)-8-hydroxy(dipropylamino)tetralin (8-OH-DPAT), attenuates the increase in 5-HT produced by reuptake inhibitors, but not by fenfluramine. (3) The large increase in 5-HT produced by infusion of reuptake inhibitors into the hypothalamus is attenuated by their systemic administration. However, systemic injection of fenfluramine during its

local infusion does not attenuate this increase. (4) Reuptake inhibitor pretreatment attenuates fenfluramine-induced increases in 5-HT. According to these criteria, the in vivo effects of the novel antiobesity drug **sibutramine** are consistent with its characterization as a 5-HT reuptake inhibitor and not a 5-HT releaser. Thus, **sibutramine** produced increases in hypothalamic 5-HT similar in magnitude to the effects of the known reuptake inhibitors, and the increase was attenuated by 8-OH-DPAT. Also, **sibutramine** attenuated fenfluramine-induced 5-HT release. Systemic administration of **sibutramine** failed to attenuate the increase in 5-HT produced by its local infusion, suggesting that this criterion is not applicable to compds. with low affinity for the 5-HT transporter.

IT **106650-56-0, Sibutramine**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(in vivo criteria to differentiate monoamine reuptake inhibitors from releasing agents in relation to **sibutramine**, a reuptake inhibitor and fenfluramine, a releasing agent)

L64 ANSWER 47 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:713861 HCAPLUS

DN 126:143907

TI Synthesis of sibutramine, a novel cyclobutylalkylamine useful in the treatment of obesity, and its major human metabolites

AU Jeffery, James E.; Kerrigan, Frank; Miller, Thomas K.; Smith, Graham J.; Tometzki, Gerald B.

CS Knoll Pharmaceuticals, Res. Development Dep., Nottingham, NG1 1GF, UK

SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1996), (21), 2583-2589

CODEN: JCPRB4; ISSN: 0300-922X

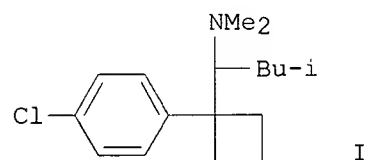
PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 126:143907

GI



AB Synthetic routes to N-{1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutyl}-N,N-dimethylamine (sibutramine) 1 (= I) and its demethylated and hydroxylated human metabolites N-{1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutyl}-N-methylamine 2, 1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine 3, 4-amino-4-[1-(4-chlorophenyl)cyclobutyl]-2-methylbutan-1-ol 4 and c-3-(1-amino-3-methylbutyl)-3-(4-chlorophenyl)cyclobutan-r-1-ol 5a are described. Key steps are tandem Grignard-reduction reactions on 1-(4-chlorophenyl)cyclobutanecarbonitrile 7 and its 3-(tetrahydropyran-2-yloxy)-substituted analog 14 and a convenient one-pot conversion of 4-chlorophenylacetonitrile 6 into the 1-(4-chlorophenyl)-3-hydroxycyclobutanecarbonitrile 13.

IT **186521-83-5P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of sibutramine and its major human metabolites with tandem Grignard-reduction reactions of 1-(4-chlorophenyl)cyclobutanecarbonitrile and cycloalkylation of 4-chlorophenylacetonitrile as key steps)

IT 186521-84-6P 186521-90-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of sibutramine and its major human metabolites with tandem
 Grignard-reduction reactions of 1-(4-chlorophenyl)cyclobutanecarbonitrile
 and cycloalkylation of 4-chlorophenylacetonitrile as key steps)

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Armitage, B | 1984 | | | BP 2128991 | |
| Bogatskii, A | 1974 | 4 | 49 | Vopr Stereokhim | HCAPLUS |
| Bray, G | 1994 | 18 | 60 | Int J Obes | |
| Bray, G | 1990 | | 639 | Progress in Obesity | |
| Bucket, W | 1988 | 12 | 575 | Prog Neuro-Psychoph | HCAPLUS |
| Butler, D | 1971 | 36 | 1308 | J Org Chem | HCAPLUS |
| Cahiez, G | 1978 | | 3013 | Tetrahedron Lett | HCAPLUS |
| Clarke, H | 1933 | 55 | 4571 | J Am Chem Soc | HCAPLUS |
| Corbel, B | 1976 | 41 | 3648 | J Org Chem | HCAPLUS |
| Courtois, G | 1983 | | 21 | Bull Soc Chim Fr | HCAPLUS |
| Drouin, P | 1994 | 18 | 60 | Int J Obes | |
| Harris, P | 1988 | 13 | 736 | Drugs of the Future | |
| Horning, D | 1970 | 48 | 975 | Can J Chem | HCAPLUS |
| Housley, J | 1991 | | | US 5047432 | HCAPLUS |
| Jones, S | 1994 | 18 | 61 | Int J Obes | |
| Kelly, F | 1994 | 18 | 61 | Int J Obes | |
| Kopelman, P | 1991 | 45 | 234 | Br J Clin Pract | MEDLINE |
| Kotsuki, H | 1990 | | 401 | Synthesis | HCAPLUS |
| Kozlik, A | 1982 | | | BP 2098602 | |
| Kozlik, A | 1984 | | | BP 2127819 | |
| Luscombe, G | 1989 | 28 | 129 | Neuropharmacology | HCAPLUS |
| Mendels, J | 1994 | 18 | 61 | Int J Obes | |
| Moore, M | 1941 | 5 | 301 | Org React, (N Y) | |
| National Institutes Of | 1985 | 103 | 1073 | Ann Intern Med | |
| Royal College Of Physic | 1983 | 17 | 13 | J R Coll Physicians | |
| Silverstone, T | 1992 | 43 | 820 | Drugs | MEDLINE |
| Weiberth, F | 1986 | 51 | 5338 | J Org Chem | HCAPLUS |
| Weintraub, M | 1991 | 50 | 330 | Clin Pharmacol Ther | MEDLINE |

L64 ANSWER 48 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1994:280290 HCAPLUS

DN 120:280290

TI Methods and composition for treating depression and other disorders using
 optically pure (+)sibutramine

IN Young, James W.

PA Sepracor Inc., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| PI WO 9400047 | A1 | 19940106 | WO 1993-US5967 | 19930622 <-- |
| W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, MG, MN, MW, | | | | |
| NO, NZ, PL, RO, RU, SD, SK, UA | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9345429 | A1 | 19940124 | AU 1993-45429 | 19930622 <-- |
| JP 07508281 | T2 | 19950914 | JP 1993-502537 | 19930622 <-- |
| EP 708639 | A1 | 19960501 | EP 1993-915449 | 19930622 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| PRAI US 1992-903034 | A | 19920623 | <-- | |
| WO 1993-US5967 | A | 19930622 | <-- | |
| AB Methods and compns. are disclosed utilizing the optically pure (+) isomer | | | | |

of **sibutramine**, which is a potent drug for treatment of depression, Parkinson's disease, cerebral function disorders, obesity, dementia and related disorders, as well as other conditions related to the activity of the compound as an inhibitor of the neuronal reuptake of monoamines. Further, methods and compns. are disclosed utilizing optically pure (+) **sibutramine** in order to avoid the adverse effects associated with the administration of racemic **sibutramine**.

IT 154752-44-0, (+)-**Sibutramine** 154752-45-1, (+)-

Sibutramine hydrochloride

RL: BIOL (Biological study)

(antidepressant)

L64 ANSWER 49 OF 49 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1994:144170 HCAPLUS

DN 120:144170

TI Pharmaceutical compositions for treating depression and other cerebral disorders containing optically pure (-) **sibutramine**

IN Young, James W.

PA **Sepracor** Inc., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|--------------|-----------------|--------------|
| PI | WO 9400114 | A1 | 19940106 | WO 1993-US5966 | 19930622 <-- |
| | W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9345428 | A1 | 19940124 | AU 1993-45428 | 19930622 <-- |
| | EP 647134 | A1 | 19950412 | EP 1993-915448 | 19930622 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| | JP 08500093 | T2 | 19960109 | JP 1993-502536 | 19930622 <-- |
| | AU 9745298 | A1 | 19980205 | AU 1997-45298 | 19971121 <-- |
| | AU 721924 | B2 | 20000720 | | |
| | AU 696392 | B2 | 19980910 | AU 1997-48297 | 19971211 <-- |
| | AU 9748297 | A1 | 19980219 | | |
| PRAI | US 1992-903040 | A | 19920623 <-- | | |
| | US 1992-903034 | A | 19920623 <-- | | |
| | WO 1993-US5966 | A | 19930622 <-- | | |
| AB | Pharmaceutical compns. containing optically pure (-) sibutramine (I), are used for treatment of depression and other cerebral function disorders, as well as other conditions related to the activity of the compound as an inhibitor of the neuronal reuptake of monoamines. I is free of the adverse effects associated with the administration of racemic sibutramine . A capsule contained I 10, lactose 70.0, corn starch 19.5, Mg stearate 0.5 mg. | | | | |
| IT | 153341-22-1, (-) Sibutramine 153341-23-2, (-) | | | | |
| | Sibutramine hydrochloride | | | | |
| | RL: BIOL (Biological study) | | | | |
| | (pharmaceutical compns. containing, for treatment of depression and cerebral function disorders) | | | | |

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